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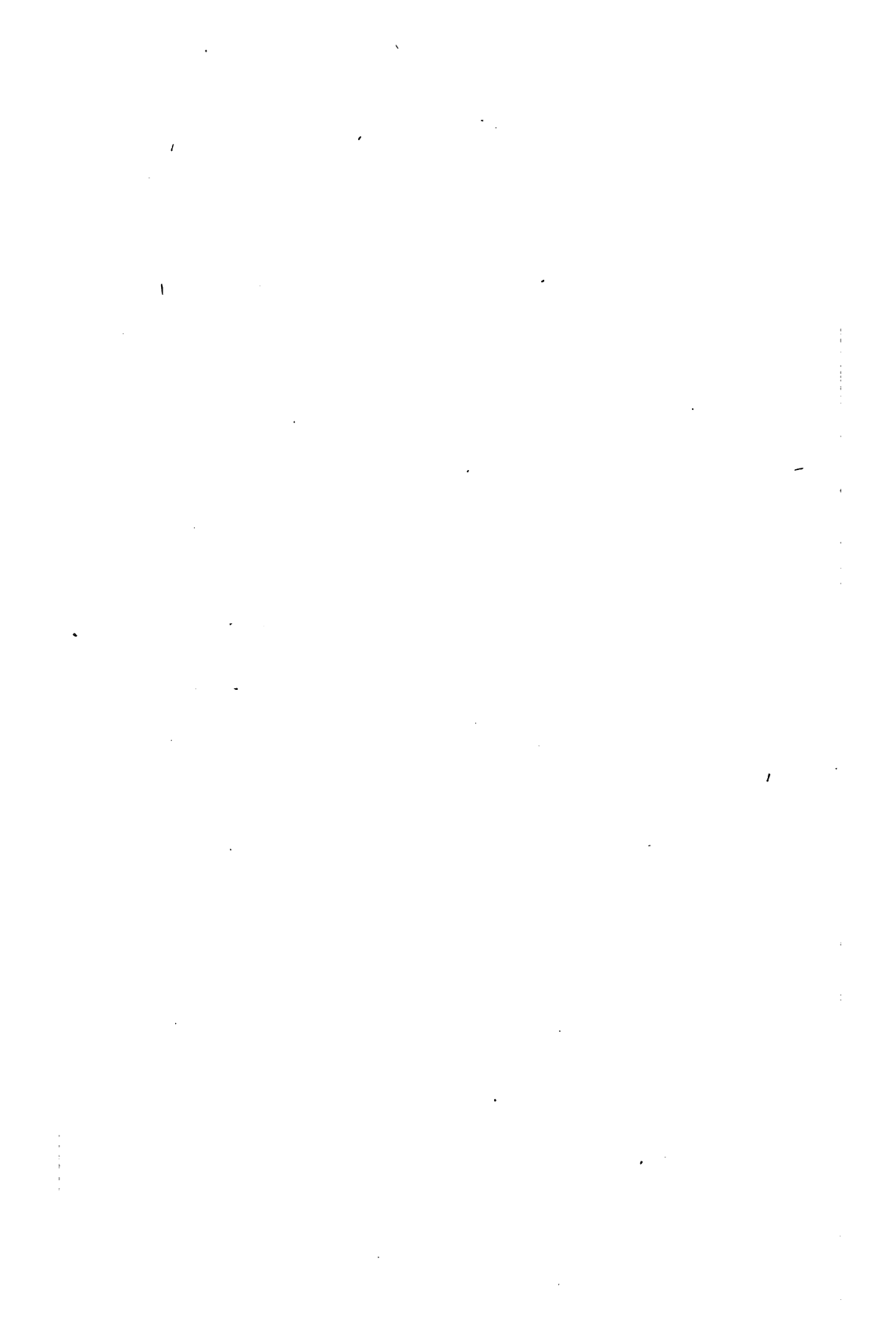
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A. H. OHMANN-DUMESNIL, A.M., M.D.

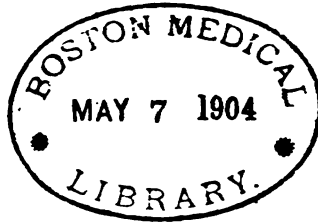
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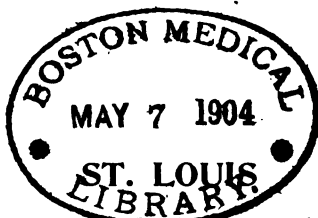
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ORIGINAL COMMUNICATIONS.

SAPODERMIN AS A CUTANEOUS REMEDIAL AGENT.

BY A. H. OHMANN-DUMESNIL OF ST. LOUIS.

This is essentially an age of new remedies, and many of these agents are not necessarily impotent because they are new. On the contrary, many are of the highest value, and this more particularly for the reason that they are neither empirical nor the result of accident nor hazard. It would be a waste of time and space to try and devote any considerable attention to this subject, more especially as the writer desires to devote a few remarks to one particular agent with which he has had some experience in actual practice. It is not the intention to discuss the theoretic part of the subject to any length, but rather to furnish some clinical experience which may prove of value to others in the treatment of similar cases.

Soaps have been very much discussed in medical literature, from the *sapo viridis* of the Vienna school to the superfatted soaps of later years. Medicated soaps have also played a great part, more especially in the dermatologist's armamentarium, and yet the various as well as numerous claims made for these agents have not been thoroughly verified by those who laid great store by them on account of the great tributes which had been paid to these agents by writers who, beyond doubt, told the truth, but did so in an imperfect manner. To attempt to give a thorough and complete review of soaps would necessitate a whole volume, and the labor of reading all this would hardly compensate him who is merely desirous of obtaining a

general idea of the subject and the practical application of such agents as will prove of benefit in his practice. It must be premised that medication by means of soap does not mean or imply that the soap is to be simply employed for purposes of ablution, and it is this mistaken idea which has been the cause of many medicated soaps earning an undeserved bad reputation at the hands of both the laity and of physicians who are not versed in the proper employment of these agents. Another point, and this is one upon which writers do not sufficiently insist, is that the soap is to be employed as a fixed dressing, and the duration of time it is to remain upon a part should be exactly specified, so as to leave nothing to hazard or to the judgment of the patient, who, as a rule, knows little or nothing of the chemistry or therapeutics of the soap he uses. Without desiring to pursue the subject of medicated soaps, there are certain properties which such soaps should possess. These properties can be divided into three classes: 1. The absence of external irritating or injurious properties. Of course, *sapo viridis* is an exception to this, because it is employed to produce irritation and to act as a keratolytic agent. 2. A good medicated soap should not produce a roughening of the epidermis, but should rather have a tendency to soften the skin and leave it in a healthy condition. 3. There should be present in the soap parasitocides which shall destroy all organisms which excite inflammatory disturbances through mechanical or chemical action. In other words, which shall destroy specific bacteria as well as the ordinary saprophytes.

Sapodermin is a soap which fills these conditions, and may be regarded as ideal. The best description of it which we have been able to find is that given by Dr. Geo. J. Bucknall (*New York Medical Journal*, Feb. 24, 1900) which is as follows: "Sapodermin is a soap in which the bichloride of mercury is incorporated, with triple refined stearine and glycerine. The bichloride is therefore changed into an albuminate of mercury, which is highly active as an antiseptic, destructive to all forms of parasites, fungoid and bacterial growths, yet leaving the skin in a soft, velvety and pliable condition. There has been no absorption, so far as I have been able to judge, and its action is so thorough that I consider it worthy of extensive employment." Dr. Arnold Sack, of Heidelberg, gives

(*Munch. Med. Woch.*, No. 7, 1899) probably the best description of this soap. He says: "The soap is made by an original and known process, the medicinal principle being a combination of mercury with casein. This caseinate being undiluted, contains 6.9 per cent of metallic mercury, whilst the soap as prepared for use contains, but one part in 500—that is, 1-5 per cent of Hg. Stronger combinations are also made up to 1 per cent. Even in the presence of alkali the Hg-casein does not lose its solubility, and it acts only as a soluble albuminate of mercury. The soap has a greenish, slate-gray color, breaks with a homogeneous line of fracture, and has a faint, not unpleasant odor. The lather, allowed to dry on the skin, gives a sensation as if the skin were covered by a sticky, colloidal membrane, and causes a feeling of tension, as if the skin were lightly varnished. The stickiness of the lather is unusually marked, so that the contact with the epidermis must be unusually intimate and the penetration proportionately greater than that of other soaps. This is probably due to the large amount of albumen contained in the soap. During the continuous and prolonged use of this soap in my dermatological practice, and though only this soap was used by me, no signs of skin irritation ever manifested themselves either in my patients or in my own case."

I have found these conclusions correct in my experience with the soap, and will here add a few more cases to the clinical records which have been published.

The record of a few clinical cases, unselected, may give the reader a better idea of the manner in which Sapodermin acts in cutaneous affections. The principal recommendation for this agent, in my opinion, is the rapidity with which it has acted in procuring favorable results. The cases which will be cited are only a few among a number, as the recital of more would perhaps be burdensome to the reader and not serve any better to establish the superiority of this remedy. Some cases are still under treatment and observation, but will not be reported, as they cannot be looked upon as fully terminated. Others which have resulted favorably are of the same sort as those which are about to be reported, so that to include them would only involve a repetition.

CASE I.—Charlotte K., a well-developed blonde, single, 18 years old, applied for the treatment of a papulo-pustular acne, dating back some nine months. Both cheeks, the chin, the forehead and the nose were involved. There also existed some comedones distributed over the face, but not very numerous. Upon questioning the patient, the fact was elicited that she suffered no trouble on the side of the stomach, her menstrual function was normal, and but one untoward symptom could be determined—she was constipated. A proper laxative was ordered for this and externally Sapodermin. She was ordered to make a thick sud of the soap and to apply it to the affected skin at night leaving it remain there until the next morning, when it was to be washed off in her ablutions. In about six days after the beginning of this treatment a noticeable improvement could be perceived. Three weeks later the acne had disappeared; but the patient was ordered to continue the use of Sapodermin, with the injunction of not laying on the lather so thick.

CASE II.—Charles G., 10 years old, a schoolboy, was brought for treatment by his mother. The parents of this boy are very cleanly, and noted that something seemed to be wrong with his scalp, and he was continually scratching his head. Upon examination the classic and characteristic symptoms of tinea capitis presented themselves, and a microscopic examination of the hair confirmed the diagnosis made clinically. The case, fortunately, was not yet very far advanced, so that the prospect of a rapid recovery seemed to be very good. The child was ordered to refrain from using the head-covering of any school- or playmate. All due precautions guarding against possible contagion were insisted upon, and the child ordered kept from school for several weeks. His hair was very closely cropped, and Sapodermin lather ordered to be placed on the head twice daily. In a few days the condition had improved; and, in a month, an apparent cure was established. The applications of Sapodermin are still employed once daily, and a cure that has been pleasant, easy and non-irritating has been established.

CASE III.—James S., aged 17, applied to me for an intolerable itching which affected him. His occupation is not of such a nature as to produce a pruritis of this sort. A careful examination of his general condition did not point to any neu-

rotic factor that could possibly be the cause of his trouble. The itching was severe, and manifested itself day and night; Internally nerve sedatives, and antipruritis externally, seemed to be entirely impotent in so far as procuring relief was concerned. The patient had reached the point of desperation, and eagerly followed the advice of covering his body with the suds of Sapodermin every night, following with a full bath in the morning. The pruritis is almost entirely relieved, and there is no doubt that two more weeks of this treatment will cure the patient.

CASE IV.—John K., 35 years old, married, applied for the treatment of a marked case of seborrhea capitis. The crusts occupied comparatively large areas of the scalp at the forepart, encroaching on the forehead, over the ears and at the occiput. The crusts of fat and scales were quite thick, and the subjacent surface was red and, in some localities, weeping. The case was one of pretty long standing, and a defluvium capillorum was showing itself. The patient was a blonde, and a complete alopecia threatened. A detergent wash of tincture saponis kalinus was ordered at first and made but slow progress. The systematic use of Sapodermin brought about a rapid improvement, and the head was soon clean and free from all traces of seborrhea. The patient was advised to use Sapodermin for a shampoo once a week in cold weather and twice a week in warm weather, and there is no doubt that this will bring about a healthy condition of the scalp.

CASE V.—Mrs. Theresa L., when first seen by me, presented a chancre of the right cheek, contracted from her husband, who was infected. Her case progressed very nicely until a little over a year after the primary infection, when she presented some superficial lesions due to slight traumatisms. These rapidly became purulent, with the formation of slight crusts where the lesions existed. Despite the use of bichloride washes and of other mercurials, no satisfactory improvement showed itself or could be detected. After a persistent use of these agents for quite a considerable time without any satisfactory results, it was decided by me to have Sapodermin applied. The patient was ordered to make the application of the suds twice daily, and in five days she called to show the marked improvement which had already taken place. This led her to employ

the soap on some lesions of the arms, and the results which have followed have been equally as good. This case constituted the first one in which I had ordered Sapodermin for a syphilitic lesion, and subsequent adoption of this method has only produced confirmatory results. It is a favorite dressing with patients on account of the cleanliness which always follows its use.

CASE VI.—William C., aged 30, married, well built and robust, came to see me for treatment of a syphilitic eruption of recent date. He is a patient who is refractory to mercurials administered internally, and he has a well-developed syphilophobia. He is very impatient to obtain rapid results, and is very much inclined to make experiments upon himself. He developed quite a marked pustular eruption, and in his endeavor to eliminate the pus, by means of scratching and other methods known only to himself, he produced rather severe-looking lesions. He complained that these did not dry up. He was counseled to use Sapodermin liberally, and, in a week, the lesions were all dry. He still continues to make applications and the results remain of the best.

The foregoing cases have been hastily sketched to give the reader an idea of a few of the different forms of skin affections in which Sapodermin may be used with profit. Of course, the number of cases could be increased and multiplied, but the principles involved would be the same, and it is hardly necessary to enter here into needless repetition. There is no doubt that the applications to which this remedy may be put are numerous, and the cutaneous diseases, even syphilitic as well as specific, in which it will be found of advantage are quite numerous. Attention has been called to Sapodermin to show its superior advantages, as well as those of medication by soap.

The method is one which possesses simplicity of application, is cleanly, and has a thoroughness which very few of the fixed methods possess. We expect to see the literature of this agent become larger, as it certainly deserves to be. In fact, it may be said that soaps as therapeutic agents have been too much neglected, when we take into consideration their comparative worth and utility.

CASES IN HEMATHERAPY FROM SOUND VIEW HOSPITAL.

BY. T. J. BIGGS, M.D., STAMFORD, CONN.

CASE I.—*Skin-grafting with Callus Shavings, in Blood.*—Mary M., age 60 years, Irish. Diagnosis: Ulcer of leg. Patient admitted to hospital March 3, 1902. She had a large varicose ulcer, situated over the tibia, about $3\frac{1}{2}$ by 2 inches. This condition had existed for nine years, and during that time, in spite of all treatment employed, had never entirely healed. It had been skin-grafted in the old way three times unsuccessfully. At the time of entering the hospital, the patient suffered so severely from pain that at times she would cry out. She was put to bed, secretions regulated, the ulcer cleaned up by means of a dermal curette, and dressed for the first twenty-four hours with a Thiersch pack. On the morning of March 5th, after the surface had been thoroughly cleaned up, a bovine pure pack was applied and kept wet with the bovine for twenty-four hours.

On the morning of the 7th, I determined to employ grafts secured from a callus on the small toe, in order to demonstrate the technique of this mode of skin-grafting to five visiting physicians. The mode of procedure was as follows: The callus was thoroughly scrubbed up, and the external layers scraped off. The thin sections of the layers next to the true skin were obtained by means of a very keen razor. Nine of these were deposited on the ulcerous surface. Over these were laid strips of perforated rubber tissue, then strips of plain bi-sterilized gauze saturated in bovine, and a bandage applied. The nurse was instructed to keep the dressings wet with bovine pure. This dressing was removed on the 14th, and it was found, much to the delight and astonishment of the visiting physicians, that, out of the nine grafts employed, eight were firmly adherent and in a healthy growing condition. The ninth had become displaced, and was removed. The wound was now dressed with bovinin pure, the dressings being kept wet and changed once in twenty-four hours. Co-incidental with the local dressings, from the outset, the patient had been given a wine-glassful of bovine in milk, alternating with wine and beer, every three hours. On March 24th she was discharged cured, the entire surface having become covered with a new healthy skin.

This experiment has been employed frequently enough by me to demonstrate that where the technique is carefully followed followed it will in a majority of cases yield the most gratifying results. A point of interest in this case, and a usual one, is that from the day of the first dressing of the bovine up to the time the patient was discharged, she was relieved of all pain.

CASE II. — *Skin-grafting with Skin-scrapings, in Blood.* — Anna H., age 12 years, American. Diagnosis: Burn of right hand. Patient was admitted to hospital March 8th, 1902. As a result of the burn she had on the back of her hand, an ulcerous surface, 2 by $1\frac{3}{4}$ inches, very painful, and in spite of three months' treatment, had refused to heal. It was impossible in this case to secure skin-grafts, and as I wished to demonstrate to the visiting physicians who were present the efficacy of *skin-scrapings* as a means of bringing about a rapid healing of small surfaces where grafts could not be obtained, with an ordinary vaccinating comb I secured skin scrapings from the little patient's arms, legs and back. These were deposited within the periphery and dressed as in the other case. The dressing was kept wet with bovine pure until the morning of the 16th, at which time it was removed, and to the delight of the visiting physicians as before, the surface was found to be almost entirely healed, there remaining unhealed only a small space about the size of a ten cent piece in the center. The wound was now dressed with bovine pure, and the nurse ordered to change it every twenty-four hours. Internally the patient had been getting a teaspoonful of bovine every two hours in peptonized milk. March 24th she was discharged cured.

CASE III. — *Skin Grafts Healed in Six Days, with Blood.* — Arnold L., age 24 years, German. Diagnosis: Wound of the left cheek, the result of being thrown from a street car. Patient admitted to hospital March 10th, 1902. The wound was filled with gravel and dirt, and involved almost the entire side of the face. A space in the center of the cheek, 2 by $1\frac{1}{2}$ inches, was completely denuded of skin. In this case, it being desirable to have the wound heal rapidly and with no evidence of scar, I determined to use grafts of normal skin sufficiently large to entirely cover the denuded surface. These grafts were secured from the patient's arms. The wound was dressed as in the other cases, the dressing being kept wet with

bovine. March 17th the dressing was removed, and the wound was entirely healed, leaving no evidence of a scar whatever; but around the periphery there was some decided redness. This is probably the most rapid case of healing of this class on record.

CASE V.—*Great Twelve-Year Old Ulcer Healed by Applied Blood without Skin Grafting.*—Mike L., age 57, Irish. Diagnosis: Ulcer of left leg. Admitted to hospital March 3, 1902. This condition was of about twelve years' standing, and during that time had never entirely healed. He had been treated at various hospitals and at various clinics and by private physicians, but said that he got no special relief. The ulcer was a large one, situated on the calf of the leg, being 4 by $3\frac{3}{4}$ inches. It was covered with unhealthy granulations, which exuded a foul-smelling, purulent discharge. The surface of the ulcer was thoroughly cleaned up with a dermal curette, and dressed with a wet Thiersch pack. This was kept wet, and not changed in twenty-four hours. At the end of the twenty-four hours this dressing was removed, the wound thoroughly cleansed with bovine and hydrozone reaction, followed by Thiersch irrigation, and dressed with bovine pure. The bovine dressings were changed twice in twenty-four hours, and the patient got a wineglassful of bovine internally every three hours. March 23d, the ulcer had healed with the exception of a small space at the upper periphery. This was touched up with a 25 per cent solution of pyrozone, and dressed with bovine pure, the dressings being renewed twice in twenty-four hours. March 30th the patient was discharged cured, the ulcer having become covered with healthy skin, and no scar tissue, it being almost impossible to tell it from the surrounding skin, the only difference being that it was a little redder.

CASE IV.—*Violent Endometritis Cured by Applied Blood, without Curettage.*—Florence B., age 30 years, American. Diagnosis: Endometritis. Patient admitted to hospital March 2d, 1902. She was greatly anemic and emaciated. Was so weak that she had to be carried from the carriage to her bed. Discharge was so profuse that unless proper appliances were used it would run from her almost constantly.

The condition had existed for four years, and during that period she had been twice curetted but no result or relief

obtained. Examination revealed the uterus to be in a highly diseased condition. So much so that I advocated a vaginal hysterectomy, or at least a thorough curettment. To these propositions both the patient and her friends absolutely declined to agree, and begged that I employ some other treatment. I, therefore, without any promise of result, determined to employ bovine injections and applications. On the 3d of March, after the patient's secretions had been regulated, I commenced treatment by washing out the uterus and injecting a solution of bovine and salt water—two-thirds bovine, and one-third salt water—and tamponing the vagina with bovine pure. Internally she was given to teaspoonfuls of bovine every hour in peptonized milk and a little water. The vaginal injections and tamponing were employed twice in twenty-four hours up to March 14th. At this time the discharge had entirely ceased and the uterus was becoming smaller. The uterine washings now were employed once in twenty-four hours, and, instead of bovine tamponings, vaginal injections of the bovine pure. Internally, the bovine was increased to a wineglassful every two hours. March 18th the patient was up, and went for a short walk, and returned in splendid condition. Had gained $4\frac{3}{4}$ pounds in weight. On March 23d the uterine injections were discontinued, and the vaginal injections employed once in twenty-four hours. At this time the uterus had assumed its normal size, and all evidence of inflammation had disappeared. The patient was looking and feeling splendidly. Therefore local treatment was discontinued. April 1st she was discharged cured, but instructed to return at intervals for examination and continue the bovine internally indefinitely.

This case was certainly an extreme one, and by all gynecologists an operation would have been deemed, I think, an absolute necessity.

Cholera in the Philippines.—A despatch from Manila under date of May 10 states that the quarantining of army transports bound for San Francisco has been resumed on account of the cholera. The epidemic is making slight gains.

DERANGED UTERINE FUNCTIONS.

BY JAMES A. BLACK, M.D.,
Hospital Department Pennsylvania Reform School.

It is safe to say that to the average physician, who is confronted almost daily with the ordinary cases of suppressed and deranged uterine functions, no other class of cases is so uniformly disappointing in results and yields so sparing a return for the care and time devoted to their conduct.

Patients suffering from disorders of this nature are usually drawn from the middle walk of life, and, by reason of the pressure of household duties or the performance of the daily tasks incidental to their vocation, are entirely unable in the slightest degree to assist, by proper rest or procedure, the action of the administered remedy.

Many of these patients, too, suffer in silence for months, and even when forced by the extremity of their sufferings to the physician, shrink from relating a complete history of their condition and absolutely refuse to submit to an examination. Authoritative medical teaching and experience unite in forcing upon the attendant a most pessimistic view of his efforts in behalf of these sufferers under such conditions.

It is in this class of practice, where almost everything depends upon the remedy alone, that a peculiarly aggravating condition of affairs exists. A very limited list of remedies of demonstrated value is presented for selection, and I believe I am not wide of the mark in saying that, in the hands of most practitioners, no remedy or combination of remedies hitherto in general use has been productive of anything but disappointment.

Some time ago my attention was drawn to Ergoapiol (Smith) as a combination of value in the treatment of a great variety of uterine disorders. Its exhibition in several cases in my hands yielded such happy results that I have used it repeatedly in a considerable variety of conditions, and with such uniformly good results that I am confirmed in the opinion that its introduction to the profession marks an era in modern therapeutics. In the treatment of irregular menstruation and attendant conditions, I have found it superior to any other emmenagogue with which I am familiar, in the following important particulars:

1. It is prompt and certain in its action.

2. It is not nauseating and is not rejected by delicate stomachs.
3. It is absolutely innocuous.
4. It occasions no unpleasant after-effects.
5. It is convenient to dispense and administer.

The following clinical notes will afford a general idea of its action in a variety of cases :

CASE I.—Mrs. ——— came to me presenting the following symptoms incident to a delayed menstruation: Persistent headache of a neuralgic character; dull, aching pain in limbs and lumbar region; cramp-like pains in abdomen, and considerable nausea. The menstrual period was overdue seven days, but as yet there was no appearance of flow. Her periods had always been occasions of intense suffering, but had never before been delayed. I began the use of Ergoapiol (Smith) with some misgiving, owing to the irritable condition of the stomach. One capsule every three hours was administered without any aggravation of the gastric distress. In twenty hours a normal menstruation was well under way; the flow was slightly increased over that observed on former occasions. The pains had subsided. Ergoapiol (Smith) was administered, one capsule three times a day, during the menstrual period, which terminated in five days. The patient was instructed to return for a quantity of the remedy several days before the next menstrual period. She did so, and, following directions, took one capsule three times a day for three days before expected menstruation. She subsequently reported that during the period—lasting five days—there had been practically no pain and that the amount of flow was, as far as she could judge, normal.

CASE II.—Miss ———, aged thirty, had been a sufferer for years with dysmenorrhœa. For about three years had suffered with leucorrhœa, particularly annoying after each menstrual period. Had undergone treatment at different times for the leucorrhœa and dysmenorrhœa, but had never experienced permanent benefit. She had been obliged to spend the couple of days of each period in bed. She consulted me about one week before her period. Examination revealed a purulent discharge oozing from os cervix and a rather large uterus. There was no displacement. She was put upon Ergoapiol (Smith), one capsule three times a day. The onset occurred one day earlier than

expected and was attended with considerable pain. The patient was, however, able to attend to her usual duties, a state of affairs such as had not been experienced for some years. At the onset of the flow Ergoapiol (Smith) was administered, one capsule every two hours. The effect was astonishing. In eight hours the pains had well-nigh subsided and there was practically no discomfort, except some pain in back.

CASE III.—Miss ———, aged twenty-one, had suffered for two years with irregular and painful menstruation. Had commenced to menstruate when sixteen, menses being very scanty, but regular and accompanied with but slight degree of suffering. Was never of a very robust physique, but in the main healthy. When about nineteen, considerable nervous trouble was inaugurated by grieving over a great bereavement, and the menses became more and more painful. The anguish became such a horror to her that she frequently resorted to morphine, partly to allay pain and partly to procure sleep. Fortunately she had not as yet contracted the habit, but the tendency was undoubtedly in that direction. When first consulted by her, examination was not granted. Menses appearing shortly afterward, was called upon to afford relief. Flow was very scanty and clotted. There were sleeplessness, terrific headache, pain in back, constipation, etc. Ergoapiol (Smith) was administered, one capsule every three hours. Flow was considerably increased, there was a gradual lessening of all the suffering and almost complete relief in twelve hours. This young woman has been placed upon Ergoapiol (Smith), one capsule twice daily for one week preceding appearance of menses, and has passed through several periods with very little suffering. An examination made recently showed a marked retroversion and very sensitive cervix. A properly applied supporter will doubtless work considerable benefit in her case, but it cannot be disputed that the comparatively easy menstruations occurring recently, in spite of the displacement, were due entirely to Ergoapiol.

CASE IV.—Miss ———, aged eighteen, had always been regular in menstruating. Could get no history of any previous disorder within patient's knowledge. Contracted a heavy cold about time of menstrual epoch and was much alarmed by non-appearance of flow. Discomfort was not marked. Ergoapiol (Smith), one capsule three times a day, was prescribed. Re-

ported later that flow was established in twenty-four hours after treatment was commenced. The delay in this case was about four days.

CASE V.—Mrs. ——— consulted me, giving the following history: Three months previously had had a profuse uterine hemorrhage occurring about the time of menstrual period. As she had for a number of years menstruated only at intervals of about six or seven weeks, the fact that menstruation had been suspended for six weeks before the date of trouble was not especially significant. The hemorrhage, which was at no time alarming, had continued for several days. Since that time there had been an almost constant wasting and at times a considerable flow. Her condition was practically invalid. Examination revealed a gaping os, a cervix exceedingly tender and abraded, and a large uterus. Before resorting to curettement it seemed advisable to try other measures. Ergoapiol (Smith), one capsule every three hours, was prescribed. In about twenty-four hours there was a decided increase in the discharge, which consisted of clots and considerable debris. There were some pains, of a cramp-like nature. The discharge began to grow less in about four days and ceased entirely in one week. There was a marked improvement in general condition. Local treatment entirely removed the tenderness and abraded condition of cervix. Ergoapiol (Smith) was administered several days before next menstrual period and resulted in a very satisfactory period. In this case it appears to me the remedy saved the patient the ordeal of curettement, acting as a prompt uterine stimulant. Her condition locally and generally has since steadily improved.

Bubonic Plague in Peru.—A despatch from Quaquil, Ecuador, states that Callao and Piser, Peru, have been officially declared infected with the bubonic plague.

PRACTICAL EXPERIMENTS IN THE TREATMENT OF ANEMIC CONDITIONS.*

BY FRITZ EULER-ROLLE, M.D., OF VIENNA.

In the following I desire to describe in some detail the action of an iron preparation which, owing to its great advantages, deserves a permanent place in our *materia medica*. The preparation referred to is Pepto-Mangan (Gude), which unites in a fortunate manner those qualities which we have a right to demand of a ferruginous remedy. In the first place, it contains, besides iron, a second constituent of importance in the formation of blood—namely, manganese; and, secondly, both of these are present in a neutral solution, which is the more to be valued since because of this fact it disturbs neither the gastric nor the intestinal functions. For this reason we are enabled to submit every case of chlorosis at once to ferruginous treatment, irrespective of the condition of the gastrointestinal tract. Other authors have called attention to this advantage. Heitzmann† emphasizes particularly how well the preparation is tolerated, and that, unlike other chalybeates, it does not have an injurious influence upon the digestive organs, but even increases the appetite.

Ripperger‡ considers the preparation as a very useful and easily assimilated remedy, free from any disturbing effect upon the digestive tract.

In my own experiments with Pepto-Mangan (Gude) I have exceeded the limits of its indications hitherto maintained, inasmuch as I became convinced that this preparation should not be confined especially to cases of chlorosis and anemia; but would effect improvement in other diseases attended with weakness and exhaustion, or at least maintain the nutrition of the patient, since the peptone which it contains acts as a nutrient and deserves consideration. On this point of view I base the first series of experiments, consisting of 11 cases, in which the general result was very satisfactory. These comprise 1 case of tabes with gastric crises, 1 case of obstinate vomiting in pregnancy, 1 case of esophageal cancer with severe stenosis, 4 cases of diabetes mellitus of slight degree, 3 cases of the uric acid diathesis with arthritis, and, finally 1 case of

*Translated from *Wiener klinische Rundschau* (Vienna, Austria), March 29, 1903.

†*Allgemeine Wiener medizinische Zeitung*.

‡*New Yorker medizinische Wochenschrift*, 1898, No. 12.

leukemia. The second series of observations related especially to cases of chlorosis and secondary anemia, the latter comprising 14 cases, so that altogether 25 experiments were made.

In the following I have made a selection from this number, and almost every case illustrates the remarkable value of the preparation.

J. P., aged 33 years, butcher's assistant, consulted me June 2, complaining of constant vomiting and very violent colicky pains, which occurred soon after taking food of any kind. The vomited matter contained almost always the entire food ingested, and on one occasion a moderate quantity of black coagulated blood. Pressure upon the stomach was quite painful. The diagnosis of ulcer of the stomach, to which the symptoms pointed, was discarded after a more thorough examination revealed symptoms characteristic of a *tabes dorsalis*. The patient within a short time had become markedly emaciated, having lost eight kilos in weight. He had acquired syphilis twelve years previously during his military service. The attacks affecting the stomach, therefore, proved to be gastric crises. After they had diminished in frequency and intensity under the use of hot poultices and strict diet, Pepto-Mangan (Gude) was prescribed at the beginning of July. At first three tablespoonfuls were given daily, added to milk; and later, when it was found that the preparation was well tolerated, it was increased to six tablespoonfuls. After the sensitiveness of the stomach had gradually subsided, the patient could be discharged from treatment in the middle of August, having regained his weight with the exception of a trifle, while the crises had completely ceased.

In a case of uncontrollable vomiting in an anemic woman, 24 years old, during her first pregnancy, Pepto-Mangan was administered in the quantity of three tablespoonfuls daily, to which were added small amounts of cold milk. Hot applications with the thermophor were also employed. After less than four weeks the patient was discharged from treatment, improved, without any loss of weight.

Another observation relates to a case of inoperable cancer of the esophagus. The patient, 62 years old, had suffered since about one and one-half years from the neoplasm, but up to six weeks ago had been able to take, without any trouble,

soft foods. Since that time, however, he had been able to swallow only small amounts of fluid. One morning, as usual, he had introduced a stomach tube himself, but during its withdrawal experienced violent pain. Since then he had constantly expectorated blood. Under the use of morphine injections, and the application of the ice-bag to the thorax, rest upon the back, and complete abstinence from any food, his condition improved, and on the following day a nutritive enema, consisting of milk, eggs and red wine, with the addition of four teaspoonfuls of Pepto-Mangan (Gude) and twenty drops of tincture of opium, was administered. On the next day the same was done. After the hemorrhage had permanently ceased, nutrition by enema was supplemented by administration per os of milk and Pepto-Mangan in small amounts, which were well tolerated. In this way it was found possible to keep up the nutrition for a considerable time in a comparatively satisfactory manner.

I am able also to report two cases of diseases of the metabolism—namely, one of diabetes mellitus of moderate degree, and one of the uric acid diathesis. The subject of the former was a man; 46 years old, who since two and one-half years had constantly excreted a variable quantity of sugar in the urine. He stated that while the amount at first was only 0.7 per cent, it had increased and finally reached 3.21 per cent. After being placed on exclusive animal diet there was always a gradual subsidence of the glycosuria, the sugar disappearing completely from the urine after about fourteen days. In the course of time, however, he acquired an unconquerable repugnance toward any form of animal food, and the supply of albumen could only be augmented by the addition of nutritive preparations to milk, of which he took about a quart daily. Gude's Pepto-Mangan was administered regularly in quantities up to six tablespoonfuls daily, chiefly to relieve the marked anemia present, which it did excellently. Inasmuch as this preparation supplies not only iron and manganese, but also peptones, to the organism, the patient could be maintained in a vigorous condition during six weeks.

Another patient, 58 years old, who had suffered since four years with arthritis urica, had passed three months previously through an acute gouty attack, which yielded to iodide of

potassium, the former attacks having been relieved by the salicylates. The diet, which had always been somewhat abundant, was thoroughly regulated, and for a long time the patient took meat only at his midday meals, with the proportionate addition of green vegetables and some fruit; while his breakfast consisted of coffee with milk or thin cocoa, with two tablespoonfuls of Pepto-Mangan, and a roll; and his supper of butter, eggs, and two tablespoonfuls of Pepto-Mangan. No recurrence of the gouty attack has taken effect after a lapse of five months, and subjectively also the patient feels well under this regimen.

Another observation relates to a peasant girl, 24 years old, with leukemia. Examination of the blood showed that the number of erythrocytes had fallen to 1,600,000 to the cubic millimetre, while the number of leucocytes amounted to almost 90,000; pokilocytosis was also present. Among the leucocytes there were found about 6 per cent of eosinophile cells and numerous lymphocytes. The percentage of hemoglobin according to Fleischl's method was about 20 per cent. The spleen was much enlarged, its lower margin being palpable three fingers' width below the navel. Besides the medicinal treatment with quinine and arsenic, Pepto-Mangan (Gude), at first three tablespoonfuls, later six tablespoonfuls, was added to the milk. The patient also received a mixed diet. At the end of two months she had gained $2\frac{1}{4}$ kilos in weight. If we consider that in severe leukemias the excretion of nitrogen is always increased, and that this patient before the administration of the iron preparation, in spite of an abundance of nourishment, constantly lost in weight, as shown by observations made every five days, we are forced to the conclusion that the improvement in her nutrition must be ascribed in great part to the abundant ingestion of easily absorbable albumen and the hematogenic power of the preparation administered.

Although from the cases cited above we are able to form a decision as to the action of this remedy, it may be further added that it fulfils its purpose in the majority of instances; for, aside from a marked case of phthisis with intestinal ulcers and amyloid changes in the internal organs, in which the profuse diarrhea was increased by the administration of the iron preparation, which therefore had to soon be discontinued, and

aside from a case of severe diabetes, a considerable improvement in the general health of the patient could always be demonstrated clinically by determinations of the bodily weight, by the conditions of the gastro-intestinal tract, and by microscopical examinations of the blood. The increase of the diarrhea in the above cases is attributable, in my opinion, perhaps to the too large quantity of the Pepto-Mangan administered. It is well known that all peptones and albumoses stimulate more or less the mucous membrane of the intestine, and therefore may give rise to frequent fluid evacuations. This is best avoided by keeping the daily and single doses within certain limits and not increasing them too rapidly. On the other hand, this property of the preparation can be utilized therapeutically, especially in cases attended with habitual and chronic constipation, particularly in chlorotic girls, in which the iron administered enhances the existing sluggishness of the bowels, as well as in neurasthenia and similar conditions.

Inasmuch as in Pepto-Mangan the nucleins are completely absent, it acts as a valuable auxiliary in the treatment of the uric acid diathesis, since, according to Kossel, all nucleins have the effect of increasing the formation of uric acid. Moreover, it is entirely free from extractive matters. While the latter ordinarily constitute a very agreeable addition to the diet, and their increased ingestion is desirable in some cases, on the other hand their effect is more injurious in various diseases, especially those of the kidneys.

Up to 1870 it was the custom in all acute maladies, and especially those attended with a typical rise of the bodily temperature, to advise against the ingestion of albumen, because to it was attributed the increase of the fever. This idea had its origin in the experience that in various acute infectious diseases, as in typhoid, peritonitis, and acute exanthemata, and even during the period of convalescence, the administration of albuminous food, of course in the unsuitable form customary at that time, was followed by a sudden exacerbation of the temperature. This, according to our present knowledge was certainly not due to the albuminous elements of the diet, but only to their form and character, which were not well adapted to the condition of the digestive organs in these maladies. On the other hand, Pepto-Mangan (Gude)

can be resorted to safely in all these cases without any fear of inducing complications in the course of the disease. In my opinion, it has, in fact, certain advantages over the customary alimentation with milk, since the latter, owing to coagulation in the stomach, assumes a firmer consistence, while the Pepto-Mangan is undoubtedly absorbed to a great extent in the stomach.

At any rate the preparation, owing to its abundance of peptone, has calorically a great nutritive value, since, according to the investigations of various authors (Zuntz, Ewald, Pollitzer, Adamkiewicz), the albumoses and peptones are capable of replacing albumen completely, and when given in appropriate doses are able to restrict, or even to arrest, the loss of fats, just like any other albumen. This is the more readily intelligible since the greater part of albuminous foods is absorbed in the form of albumoses and peptones and reconverted into albumen by the intestinal mucous membrane and within the tissues.

If up to now I have described only cases which are intended to illustrate the utility of the preparation even in desperate conditions, I have done so in order to point out that in cases apparently beyond medical aid and in others in which we despair of success we should not stand by inactive. Thus, for example, in the above case of diabetes it was a matter of great importance that we were able by means of pepto-mangan to raise his nutrition, which, in consequence of his repugnance toward a meat diet, had become greatly reduced and was accompanied by pronounced anemia, to such a level that for a comparatively long period of time the patient was able to get along without any large consumption of meats.

What further incited me to report these cases was that the experiments so far made with pepto-mangan have been restricted, for the most part, to the field of iron preparations, of which an article by Dr. Roen* affords up a very comprehensive review. This author remarks very justly that most of the ferruginous preparations hitherto manufactured consist of albuminous material held in solution by an excessive amount of caustic soda, thus neutralizing the gastric juice, while, on the other hand, through their decomposition the irritating chloride of iron is produced, or they represent peptone combinations containing

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an excessive amount of mineral acids, and therefore are precipitated by the alkaline intestinal secretion and rendered less assimilable.

Pepto-mangan does not share in these disadvantages, and, moreover, owing to the presence of manganese, that excellent carrier of oxygen, is of the greatest value, especially in chlorosis, anemia and allied conditions.

I take the liberty of reporting only two more cases from the remaining fourteen, both relating to chlorosis characterized by severe symptoms and illustrating very graphically the prompt action of this chalybeate.

The first case was that of a girl, 18 years old, who presented a well-developed type of marked chlorosis. There was marked anemia of the general integument; the mucous membranes were very pale, and she suffered since the last fourteen days with persistent headache and buzzing in the head. This was accompanied by palpitation and a feeling of weakness, as well as pronounced edema of the lower extremities up to the middle of the leg. Her menstruation was very irregular and profuse. Examination of the blood showed a much reduced color index, 20 according to Fleischl's method. The number of red blood cells was reduced to 3,100,000, the white not being materially increased. Although the patient had taken the greatest variety of iron preparations, they were not well tolerated. I therefore decided to administer Pepto-Mangan (Gude), enjoining at the same time rest in bed, which seemed indicated, if for no other reason than that of the condition of the heart and the attacks of weakness. The patient received at first two tablespoonfuls and after a few days three tablespoonfuls of the pepto-mangan, and this amount in the third week was increased to five tablespoonfuls daily. The effect was truly surprising; without the least disturbance of the gastro-intestinal tract, considerable improvement of her entire condition had occurred at the end of four weeks, so that she was able to be up and about. She had a good appetite and menstruation was regular for the first time in months, while the cardiac palpitation, headache and buzzing in the head, as well as the edema, had vanished. Examination of the blood showed 3,980,000 red blood corpuscles and a hemoglobin percentage of 50 (Fleischl). After another four weeks the patient was completely restored to health, with a

hemoglobin percentage of 70 and an increase in the number of red blood cells to 4,200,000.

The second case of chlorosis related to a girl, 21 years old, who since the beginning of the disease had complained of marked disturbance of the digestive organs. She frequently vomited and suffered with gastric pains and an increasing feeling of aversion toward all food. In this case also an examination showed the presence of severe chlorosis, complicated with anemia and emaciation due to the much-reduced ingestion of food. This case was the more welcome to me because it afforded a crucial test as to whether pepto-mangan can really be taken without any disturbance of the gastro-intestinal tract. I administered at first very cautiously, only three teaspoonfuls of the preparation, and, as this was completely retained and seemed to cause no disturbances of any kind, I increased the quantity on the third day to two tablespoonfuls, and during the following days to four tablespoonfuls, which dose was not exceeded. The preparation, therefore, completely fulfilled my expectations. In the course of three weeks the gastric and intestinal troubles had disappeared, the patient regained her appetite and was able to take an abundance of food, so that her weight had soon reached its normal level, while simultaneously with the disappearance of the chlorotic condition a considerable improvement in the state of the blood ensued.

In conclusion, I would only add that during the administration of the pepto-mangan no unpleasant by-effects have been observed and that the preparation has always been willingly taken.

A Model Tenement, N.Y.—Following the removal of the unsanitary habitations of the squatters on government land near the water front, the city government has constructed a large tenement for their accommodation, rooms in which will be rented at about cost. As a sanitary experiment, the outcome will be watched with much interest. The number of occupants for each apartment is laid down, cleanliness must be maintained, game cocks and pet animals will not be allowed on the premises, nor can there be any sale of goods or food on the premises. A janitor will enforce these regulations. It remains to be seen whether the Filipinos are willing to give up their usual filthy habits and surroundings, and their cherished fighting cocks, for the sake of excellent accommodations and low rents.—*Boston M. & S. J.*

SYMPOSIUM ON MILK.

SOME BIOLOGICAL DIFFERENCES BETWEEN THE NATURAL AND ARTIFICIAL FEEDING OF INFANTS.

BY DAVID L. EDSALL, M.D.

The part that has been assigned me on this evening's program is to review briefly the most important of certain recent investigations, which give at least partial explanations of some very important facts in infant feeding that have never previously been well understood. We know, for example, that by properly adapting milk-mixtures to individual cases, we can, as a rule, accomplish perfectly satisfactory results; but we know equally well that in a certain proportion of the more difficult cases milk-mixtures, no matter how carefully prepared are poorly digested. At times also, in spite of taking sufficient quantities of food—and even, perhaps, in spite of apparently satisfactory digestion of the food—the infant gains very little, or persistently loses weight and strength. In addition to those evident differences in nutrition, bottle-fed babies are more subject than nursing infants to both local and general infections other than direct milk infections.

The nature of this difference between the nutritive and protective qualities of mothers' milk and those of cows' milk has been extremely obscure, particularly in the cases with apparently good digestion; for chemical methods of investigation show no differences that constitute a satisfactory explanation. There are, to be sure, certain important differences between human milk and cows' milk other than the gross differences in the amounts of proteid, fat and sugar. Among these may be especially mentioned the difference in the relative proportions of casein and lactalbumin; in the amounts of other organic substances, such as lecithin; in the quantities of inorganic salts; and also in the combinations, both organic and inorganic, in which the inorganic material is present. All these are undoubtedly of importance; but they are not satisfactory explanations of the difference in the nutritive qualities of the two forms of milk, and they do not offer any reason for the superior resistance to infection shown by the healthy breast-fed baby, as compared with the healthy bottle-fed infant.

During the last three or four years there has been collected a considerable mass of evidence, obtained by biological methods

of study, which demonstrates certain definite and previously unknown differences between human milk and that of animals. While those now known certainly do not constitute the sole biological differences between human and animal milk, and others will undoubtedly be discovered, those already recognized are sufficient to make clear some of the most important general biological differences between maternal and artificial feeding.

I shall first mention briefly an investigation that did not deal with the nature of milk, but with the effects of different milks. It has been clearly demonstrated by Huebner that a child fed upon artificial food needs to do more actual work in order to render that food a suitable nutriment for its tissues than does the nursing baby. Huebner made exact determinations, in healthy bottle-fed and nursing infants, of the value of the food-intake in energy-units, and of the value of the out-go; and also determined the changes in weight. He likewise made equal and proper allowance for the energy used in ordinary muscular action, and the like. He found that there is in the bottle-fed, as compared with the nursing infant, an evident and very marked loss of energy somewhere. This can be attributed only to the fact that the child is obliged to use this energy in changing the cows' milk so that it may become a suitable food for its tissues, while the nursing child is not obliged to do this. Hence, the bottle-fed, as compared with the nursing infant, wastes a large amount of the energy obtained from its food; at the same time, the food demands excessive functional activity on the part of the child, the strain certainly being largely borne by the gastrointestinal tract during the process of digestion. This loss of energy shows clearly why a bottle-fed infant receiving apparently the same amount of energy-equivalent in its food, often does not thrive as does a nursing baby, and may even atrophy; and the fact that the food demands extra work of the child is at least a partial explanation of the tendency to digestive disturbances in bottle-fed infants.

This, however, while important work, is only an interesting and exact scientific demonstration of facts already practically known. It does not show wherein the difference between the two forms of nourishment lies. A very different line of research, undertaken for another purpose altogether, has thrown some light upon this point, in that it has shown that there are very

marked biological differences among the various kinds of milk—differences that cannot now be defined, but that are so striking and important that they make it easier to understand that there must inevitable be variations in the digestibility and in the nutritive qualities of these milks.

In 1899, in the course of his studies on immunity, Bordet demonstrated that if an animal be injected with the milk of an animal of a different species, the injected animal will develop some substance or substances in its blood serum that, if added to milk taken from the same species of animal as was the milk injected, will cause a precipitation of the casein of this milk. If, for instance, a guinea pig be injected repeatedly with cows' milk, the guinea pig's blood serum will acquire the property of precipitating cows' milk. It has, however, no action upon the casein of the milks of species widely different from the original. This, as is well known, has been shown to be true of many other proteids besides casein. It is unnecessary to discuss the complex theories as to the nature of the reactions that produce the precipitating substances, or to refer to the importance of this work in its relation to the question of immunity. Its importance in connection with the subject under discussion consists in the immediate demonstration offered by it that there are certain striking biological differences in milks, which are specific of these various forms of milk.

Bordet's results with milk have been confirmed by a number of observers (Wasserman and Schütze, Fisch, Nuttal and Dinkelspiel, Müller, Hamburger, Mullie, Fuld). Moro, indeed, even claims that he has demonstrated that distinct differences between individuals of the same species (in his experiments, women) may be shown by this method. He states that after injecting human milk into animals, he found that the serum of the injected animals reacted decidedly more markedly with the milk obtained from the same person as the injected milk than it did with the milk of other women. This remarkable statement was confirmed in discussion, by Schlossman, who reported the same results. This, however, needs further and more definite confirmation; and it should particularly be seen whether the difference in the reaction was not merely due to a difference in the amount of casein present in the milk. The results referred to are, however, sufficient to demonstrate

that there are marked differences in the nature of the casein of the milks of different species. These differences cannot be overcome by any methods of modification at our disposal.

It is of interest to note that this reaction apparently occurs only with the casein of milk, and not with other milk-proteids, which is apparently strong additional evidence of the fact that the chief difficulty in assimilating the milk of another species lies in the differences in the casein. Fuld has apparently shown that the reaction is synthetic, and not katalytic; and that it is not the same as that produced by the ordinary milk-curdling ferment. Michaelis, however, makes the interesting suggestion that the reaction may be considered to demonstrate the somewhat obscure *raison d'être* of the milk-curdling ferment. He believes that milk is coagulated when it reaches the stomach in order to prevent it from being absorbed in unassimilable form, *i. e.*, before digestion. This suggestion is hardly pertinent, however; for homologous, as well as heterologous, milk is acted upon by milk-curdling ferments.

In connection with this work may be mentioned the recent work of Wassermann, who makes the interesting claim that he has demonstrated in a similar way that more effort is demanded of the organs of a child fed upon heterologous milk than of those of one fed upon maternal milk. This author has shown that when guinea pigs are injected intraperitoneally with heterologous proteids (the blood serum of goats, for instance) and then injected, also intraperitoneally, with large amounts of bacteria, the animals possess an unusual power of killing off and dissolving these bacteria thus locally injected. This power is not shared by animals that have not received an injection of heterologous proteid. When the animals are injected with homologous proteid (blood serum from their own species), they do not exhibit this striking local bactericidal power. This, Wassermann considers to demonstrate that the injection of a heterologous proteid excites a demand for certain biological ferments, which are concentrated at the point at which the heterologous proteid has been introduced; and these ferments assist in destroying the bacteria. The injection of a homologous proteid does not cause the same demand for ferments; hence, the local immunity is not raised above the normal. This shows clearly, he believes, that the use of proteid from a species

other than that of the child must cause its organism to exercise an excessive amount of ferment-activity in assimilating that proteid; in other words, more is demanded of the child in assimilating heterologous proteid than in making use of its natural food.

It is questionable, however, whether Wassermann's work did actually demonstrate what he thought it did; for there is a very important difference between the subcutaneous injection of a proteid of another species and the injection of that proteid into the digestive tract. We have, for instance, known for years that when foreign proteids are injected into the circulation, they are—in large part, at least—excreted at once by the kidneys, and practically act only as foreign substances; while when taken as food they are, of course, made use of in the economy; and, in more direct relation to Wassermann's work, it is an important fact that, according to the observations that are apparently most reliable (Michaelis and others), the digestion-products of the proteids of another species, when injected into animals, do not cause the production of a specific substance that will precipitate the substance originally injected. The child, of course, does not take cows' casein beneath the skin, but into the alimentary tract; and it is digested before it reaches the circulation. Wassermann's work does not take account of this fact. So far as has been demonstrated, then, cows' casein, in the form in which it is absorbed, and circulates in the child's body, does not demand the excessive production of ferments for its assimilation that Wassermann's work would indicate. While it is highly probable that the proteids of cows' milk do demand more work of the child's metabolism than do the proteids of mothers' milk, it has been demonstrated only that there is an excessive demand upon the digestive tract.

As to the question of the greater resistance to infection exhibited by the nursing infant: The fact mentioned, that the bottle-fed baby uses and wastes more energy than the nursing baby in obtaining an equal amount of nutriment, is a partial explanation of its greater liability to infection; for this means that the child's functions are constantly being taxed beyond the normal. This is not, however, an entirely satisfactory explanation; for even robust, well-nourished, bottle-fed infants are more subject to local and general infections than are nursing

babies. This important question has been made clearer by the work of Moro, which indicates that the lesser resistance of the bottle-fed infant to infection depends upon the fact that the nursing baby is provided in its mother's milk with certain protective substances which are lacking in the food of the bottle-fed infant. It has for some time been known that antitoxins, agglutinins, etc., are at times furnished to infants in the mother's milk; and Moro, in comparing natural and artificial feeding, found that when the bactericidal power of the blood serum of bottle-fed babies was contrasted with that of the blood serum of nursing infants, there was a very evident difference in favor of the nursing child. This difference disappeared rapidly when the nursing baby was put on cows' milk. Evidently, then, the protection had come through the mother's milk. It is a very remarkable fact that Moro's work, as well as that of others, shows that probably neither cows' milk nor human milk possesses in itself any notable bactericidal properties. The bactericidal substances are, therefore, not furnished as such to the infant in the mother's milk; but it is probable that they are present in some combination and are set free only in the process of digestion or of assimilation.

Moro has also demonstrated a difference between the resisting power of bottle-fed and that of nursing infants by investigating the hemolytic power of the blood serum of the two classes of infants. He found that the serum of the nursing infant has a much more marked hemolytic action than that of the artificially nourished child.

Unfortunately, Moro compared nursing infants with those fed upon sterilized cows' milk. His work would have been more definite and convincing had the artificially nourished infants been fed upon unheated cows' milk; for the differences in the bactericidal properties of the blood serum depend upon the presence of a larger supply of so-called alexin or complement in the serum of the nursing child. Sterilizing the cows' milk would destroy any protective property that it might be able to furnish the child, for complements are extremely susceptible to high temperatures. The work, in order to be complete, needs to be performed with babies fed upon unheated cows' milk that is known to be free from bacterial infection.

The work that has been mentioned is the most important of the biological investigations directly relating to the nutritive and protective qualities of mothers' milk, as compared with cows' milk. There are, however, certain other interesting biological differences between different milks that are already known, and that may be shown to have an importance that we cannot yet recognize. It has, for instance, been demonstrated that human milk contains a diastatic ferment that is not found in cows' milk; that this ferment is apparently not derived directly from the blood serum, but is produced in the mammary gland. It has also been claimed that human milk contains a ferment that has the power of decomposing salol, benzol, etc., while cows' milk does not; and Luzzatti and Biolchini state that human milk contains a much more energetic fat-splitting ferment than does cows' milk; while, on the contrary, that much-abused and, as yet, somewhat hypothetical substance, a glycolytic ferment, is said to be much more active in cows' milk than in that of women. Ferments with the characteristics of trypsin and pepsin are apparently found in all milks, though their amounts vary in different species. Spolverini even claims that he has been able to modify the amounts of certain ferments in the milk of various animals by modifying their diet, and he insists that results of importance in infant feeding may be obtained in this way; though some skepticism concerning this point is still justifiable.

A much more important fact than those just mentioned is that many milks contain a peculiar oxidizing ferment, which is of importance in determining commercially whether milk has been heated before being sold. The milk of the cow, for instance, and that of a number of other animals, contains this ferment; while human milk and a number of kinds of animal milk are known not to contain it. This oxidizing ferment is not now known to be of much physiological importance for the young of these animals, though it may have such importance; but it has much importance in connection with the active effort that has for years been made to provide some satisfactory method of showing that milk has been heated, so that the public may be protected against the fraud of being furnished with heated milk. The heating is, of course, done in order to prevent bacterial action from spoiling the milk, while what should be

done is to provide in the beginning a reliable milk with a small bacterial content. The difference between the two forms of milk is, as is well known, of great dietetic importance, particularly in feeding infants; for milk, in being heated to a high temperature, loses some of its digestibility and nutritive qualities.

Many chemical methods of determining this—methods both simple and elaborate—have been suggested and found unsatisfactory. There has now come to be a very fair general agreement that a simple and satisfactory method of telling whether milk has been heated is to make use of this oxidizing ferment. The ferment has the property of causing color changes in guaiac, guaiacol, creosote, paraphenyldiamin, and other substances; and a simple and apparently accurate method of telling whether milk is raw is, therefore, merely to see whether it will cause these color changes; whether it will, for instance, cause the tincture of guaiac to turn blue. A positive result indicates the presence of raw milk; a negative result shows that the milk has been heated. The test must be carried out with certain precautions, but is apparently reliable.

As I have said, the ferments last mentioned are not now known to have any great physiological importance. It is scarcely possible, however, that they exist without some purpose; and there is one way, as yet unmentioned, in which the work that has been referred to seems to be of decided practical importance. It is certain that ferments, the ferment-like compliments, and any similar substances present in raw milk, would be entirely destroyed by heating to the temperature maintained in sterilizing milk, and many of them would be destroyed at the pasteurizing temperature. We now thoroughly recognize the well-established fact that sterilizing an infant's milk entails the danger of seriously disturbing nutrition; and many pediatricists—justly, I think—believe that pasteurization is not wholly free from similar dangers, though far less hurtful than sterilization. We must, as yet, often pasteurize milk, in order to save infants from the ubiquitous and often terrible possibility of milk infection: and we shall unquestionably be obliged to do this in many instances for a long time to come. But it does seem that these recent biological investigations of milk emphasize the dangers of sterilization, and indicate that

the results of pasteurization are not wholly beneficial. We have been accustomed to attribute the ill-effects of heating to physical and chemical alterations produced thereby, chiefly in the proteids. We are, however, well justified in believing, even in the absence of exact proof, that these ferments and substances with ferment-like activities are of very decided importance; and also that there are other important biological characteristics of milk that are not yet known. Most of these distinctive biological characteristics are, as stated, destroyed by heat; many of them even at the pasteurizing temperature. It is highly probable that some of the bad results of heating milk are due to these changes; and it is, at any rate, now quite clear that even pasteurizing milk causes alterations in it.

This work provides, then, added and important reasons for insisting to the profession and to the intelligent public that the end that must be sought is not some artificial means—such even as pasteurization—of overcoming an infection of milk that has already taken place; but the production of reliable, clean and uninfected milk, which does not need artificial treatment.

MILK AS A CARRIER OF INFECTION.

BY SAMUEL MCC. HAMILL, M.D.

When one considers the enormous quantity of milk consumed as food, the importance of a proper regulation of the milk supply impresses itself forcibly upon one. The statistics of 1890, as quoted by Ravenel, showed the number of cows in the United States to have been 15,952,883. These cows showed a milk-producing capacity of 6,750,000,000 gallons. Ninety-five per cent of this was consumed as milk, the balance being converted into butter and cheese.

Unquestionably the major portion of the milk supply goes to the nourishment of infants and children, who, owing to their naturally poor resistance, are much more liable to infection from defective milk. We are all conversant with the enormous infantile mortality of our great cities. On the basis of Oesterlein's statistics, Kober concludes that "the average death rate during the first year of life is 188 in every 1,000 infants born." In some cities the mortality amounts to almost 50 per cent of

the births. Thus in Chemnitz, 480 deaths occurred in the first year for every 1,000 born. In our own beloved city, exclusive of still births, 230 die in every 1,000 born. The number of deaths is greatest during the first month of life, then gradually decreases to the fourth month, to increase again about the twelfth month—the usual time of weaning.

Kober quotes statistics relating to the percentage of deaths among artificially fed infants, which show that from 40 per cent to 47 per cent of this class die in Berlin, while in Paris the rate has sometimes reached the appalling figure of 75 per cent. The mortality from digestive disturbances amounts to about 40 per cent of the whole, which as Kober points out, strongly suggests that “the morbid agent in these cases is introduced into the body with the food.” In the light of these statements, it is easy to appreciate the necessity of a proper control of our milk farms and dairies. The literature relative to the production of disease by the consumption of infected milk further emphasizes this.

It is a matter of rather ancient history that milk, in addition to being an ideal food, can act as a medium for the transmission of very serious diseases—thus, for instance, it was shown by Sagar in 1764 and Fagar and Plenck in 1765 that epidemics of a disease with such symptoms as sore throat, increased heat in the mouth and the formation of aphthous ulcers, occurred in subjects who had consumed milk from animals suffering with foot and mouth disease. From this period up to the present time the literature is rich in descriptions of disease manifestations directly traceable to the milk supply.

It is my purpose, in this communication, to briefly review the most important of these, and, in so doing, I will borrow largely from the work of Professor Conn of Wesleyan University, the able communications of Dr. M. P. Ravenel, and more especially from the exhaustive and interesting review of this subject communicated by Dr. George M. Kober, in his monograph entitled “Milk in Relation to Public Health.”

Milk infections may be divided into (1) acquired infections, viz: those in which the infective properties are introduced after the milk leaves the udder of the cow; and (2) infections transmitted from a diseased animal.

It has been shown by Pasteur that milk removed from the udder of a healthy cow by means of a sterile tube contains no

bacteria, but notwithstanding this fact the majority of infections are of the first class, a fact attributable to careless methods of handling the ordinary market milks. The primary source of infection is at the point of production and relates to the condition of cleanliness of the cow, the stables, the milkers and the utensils in which the milk is received and transported; and the second depends upon the conditions to which the milk is subjected after leaving the farm and relates more especially to the length of time and the temperature at which the milk is kept, the number of handlings it receives and the method of preservation after its delivery to the consumer.

The wretched conditions under which the ordinary market milk is produced are far beyond the conception of the average city resident. About the only indication that we have of the amount of care expended upon its preparation is the amount of sediment present in the jar or pitcher in which the milk is received. While this sediment is a definite signal of danger, its absence, unfortunately, is no indication of a well-prepared milk. It means merely that the macroscopic dirt has been eliminated.

According to Kober, Soxhlet was the first to point out that this sediment is made up almost entirely of excrementitious matter which had probably adhered to the udder of the cow and been detached therefrom and had fallen into the milk in the process of milking. Renk, in 1890, reported the results of some experiments made to determine the amount by weight of such sediment in each liter of milk. He found in the ordinary market milks of Leipzig, Munich, Berlin and Halle 3.8, 9.0, 10.3 and 12.2 milligrams respectively. Prof. Hird, of Washington, D. C., in a study of "twenty-four specimens of market milk taken at random," found from five to thirty milligrams per pint and quart. These sediments studied microscopically are shown to be made up of "epithelial debris, hairs of the cow, excrementitious matter, vegetable fibers, organic and inorganic dust particles, bacteria, fungi and spores of every description." Fully 90 per cent of the germs are fecal bacilli, "which," as Kober says, "is not only disgusting but extremely suggestive of danger." The number of bacteria sometimes found in ordinary market milks is almost incredible. As many as 100,000,000 per cubic centimeter have been found in the milk of Washington, D. C., and as many as 600,000,000 per cubic centimeter

have been found in some milks in the city of New York. Of course these figures are unusual, but a count of from 1,000,000 to 2,000,000 per cubic centimeter is not at all uncommon.

It does not require much of an imagination to comprehend how such a milk sold under ordinary market conditions will rapidly multiply its bacterial content and quickly become unfit for consumption.

Plaut, of Leipzig, determined by experimentation that "the so-called fresh milk delivered in the morning" was often unfit for consumption by infants. In the study of the milk supply of forty-seven infants, he noted that eighteen of the infants were sickened with digestive disturbances by the milk and that of this number six died. Kober believes that the chief danger from such milk is "the possible presence of tyrotoxin (a supposed bacterial product first isolated from cheese by Vaughan in 1864) and other toxins or bacterial products." In this view he is in accord with Vaughan, who has pointed out a close relationship between the presence of tyrotoxin and the occurrence of some of the severer types of the gastrointestinal disturbances in infants and young children, having in 1886 found tyrotoxin present in the milk used by an infant who was suffering with symptoms of cholera infantum. In the same year, in two extensive epidemics of milk infection in the hotels in Long Branch, N. J., tyrotoxin was isolated from the milk supply.

We are all conversant with infections of this character, not only in the summer but also in the winter months. That they are all dependent upon the one poison—tyrotoxin—is improbable; other bacterial toxins have been demonstrated. Flügge (*Zeitschrift f. Hygiene*, July, 1894) in 1894 isolated certain milk bacteria which were capable of producing toxins, and it is not unlikely that in the rich bacterial flora of the market milks, 200 different varieties having been described (Conn), there are other equally objectionable toxins as yet not isolated. In any event, we have an unfortunately large array of evidence to show that defective milk is capable of producing severe, more or less indefinite toxic symptoms, probably always dependent upon bacterial products.

It has long been recognized that milk is a not uncommon medium for the transmission of such infectious diseases as ty-

phoid fever, diphtheria, scarlet fever and cholera. The amount of evidence accumulated in support of this belief permits no doubt as to its correctness. It has been clearly shown that milk forms a splendid culture medium for the growth of the micro-organisms usually found in milk, as well as those which produce erysipelas, pneumonia, typhoid fever, diphtheria, glanders and tuberculosis.

Loser has also shown that the cholera bacillus grows well in milk which is fresh, although, as pointed out by Cunningham, souring of the milk instantly checks this growth.

Typhoid Fever.—Dr. Michael Taylor, in 1858, before the days of bacteriology, described the first epidemic of typhoid fever, dependent upon milk infection. The epidemic was traced to the family in charge of the dairy, where there were several cases of typhoid fever. The mother, who nursed the children, also milked the cows. The milk was kept in the kitchen, which was also the bedroom of the patients. Typhoid fever developed in seven of the families supplied from this dairy. Since this time, 195 outbreaks, affecting in the neighborhood of 10,500 persons, have been described. Kober has collected 110 of these, Mr. Ernst Hart sixty-nine and Dr. R. G. Freeman sixteen. In commenting upon these, Kober states that "in 148 of the total number there is evidence of the disease having prevailed at the farm or dairy. In sixty-seven it is probable that the infection reached the milk by soakage of the germs into the well water with which the utensils were washed; while in sixteen instances intentional dilution with polluted water is a matter of evidence." In two epidemics, Eberth's bacillus was isolated in the water supply to the dairy. In seven instances, the infection was attributed to the cows drinking or wading in sewage polluted water and meadows. In four, ice cream prepared in infected places caused the epidemics. In seven instances, the mixed milks received at creameries were held responsible; while in twenty-four the dairy employees aided in nursing the sick, and in ten others patients with mild attacks and those in early convalescence were among the milkers. In one instance, the exhalations from nearby dejecta were thought responsible for the infection. In referring to this, Kober suggests the likelihood of infection through the medium of flies.

Scarlet Fever.—Dr. Michael Taylor, in 1867, also described the first epidemic of scarlet fever transmitted through the milk

supply. The disease existed in the milkman's family. The cows were milked by persons in charge of the sick. Every one of the 111 persons who partook of this milk contracted the disease. Since this date, ninety-eight similar epidemics have been recorded. Dr. Kober has collected and collated seventy-three of this number, Mr. Hart twenty-one and Dr. Freeman five. Kober reports that in sixty-eight of these instances the disease existed at either the farm or dairy. In six instances, persons connected with the dairy either lodged in or had previously visited infected houses. In two, the infection was thought to have been conveyed from a fever house visited by the dairyman, who was in the habit of taking his milk can into the homes, and in one by means of infected bottles. In some instances the milk was infected by persons milking during convalescence and again by persons who milked while nursing the sick; and in some instances, to be referred to later, the disease was thought to be traceable to disease in the cow.

Diphtheria.—The first milk borne diphtheria epidemic was described in 1877 by Dr. E. L. Jacob. There were no cases of the disease discovered among those who came in contact with the milk and there was no illness amongst the cows, but the suggestive evidence that led to the conviction of the milk was the fact that "within three days, fifteen persons in eleven households, in good sanitary surroundings and all supplied from one dairy, sickened with the disease." Thirty-five additional epidemics have been described: twenty-one collected by Kober, twelve by Hart and two by Freeman. In but thirteen of these did diphtheria exist at the farm or dairy. In twelve instances the disease was attributed to diseases of the cow, such as garget, chapped and ulcerated conditions of the teats and udders. In one epidemic, one of the dairymaids had a nonmembranous angina; in another, a milker continued her duties while suffering from a mild attack of diphtheria, and in yet another the driver of the wagon was suffering from a diphtheritic sore throat.

Cholera.—Macnamara, in 1872, reported an outbreak of cholera in a boarding house in Calcutta which affected seven persons—six Europeans and the cook of their apartment. No other cases occurred in the house. These persons used milk from a dairy situated near to one of the famous unsanitary Indian water tanks which serve as a source of supply for drinking,

as well as a place for laundrying, bathing and dairy purposes. Immediately before this, eight cases of cholera had occurred in close proximity to the tank used by their milkman.

Simpson, health officer of Calcutta, also describes a small outbreak traced to milk which came from a dairy located near to a tank into which it was shown dejecta from a cholera patient had been deposited. The milk had been diluted by one-fourth water from this tank.

Infections Transmitted from Diseased Animals.—As has been said, these are less common than the acquired infections. They are, however, probably more numerous than is generally thought. The presence of small numbers of streptococci in milk is fairly common. The record of diseased conditions definitely traced to this micro-organism is not small. Inflammatory conditions of the udder and teats are frequent. Many of these are responsible for the introduction into the milk of septic germs, such as the streptococci and staphylococci. Kober refers to several epidemics in which streptococci were found in the milk. In one of these reported by James Niven, health officer of Manchester, 160 persons partook of a milk in which streptococci and a bacillus, having the characteristics of the colon bacillus, were found. They all suffered from diarrhea, nausea and abdominal pains. Investigation showed that milk from a cow suffering with inflammation of the udder had been mixed with the milk from the other cows. He refers to a similar epidemic reported by Boxall and calls attention to the fact, as stated above, that in nineteen of the epidemics of supposed scarlet fever, collected by himself, the disease was thought to be due to disease in the cow, in four to a puerperal condition of the animal and in nine instances to inflammation of the udders and teats. In six instances scaling of the skin and falling of the hair was noted.

A very close relationship exists between the symptoms of certain streptococcic infections and those of scarlet fever and diphtheria. This similarity has led to errors in diagnosis on many occasions. In Great Britain, epidemics of scarlet fever and diphtheria have been traced to a milk supplied by animals suffering from septic processes in the teats and udders. In an epidemic occurring in Marylebone, St. Pancras and Hampstead, which was traced to a milk farm at Hendon, no cases suspicious of scarlet fever could be discovered amongst those coming in

contact with the milk. Examination of the herd showed the teats and udders of some of the cows to be the seat of an ulcerative process. Dr. Klein made bacteriological studies and isolated a micrococcus from the discharges from the teats which, when injected into healthy calves, produced symptoms similar to those manifest in the herd and having a decided resemblance to human scarlatina. Klein also found the same micrococcus in the tissues and organs of the patients infected by this milk, and from this concluded that he had discovered the "micrococcus scarlatinæ."

The results of Klein's investigations were rather severely criticised. Thus, Tein pointed out that at the time of the Hendon outbreak other herds were suffering from the same disease of the udders and teats, but that the milk from these herds did not prove infectious. He thought the disease cowpox, and believed the epidemic to have been true scarlatina, probably originating in a laundry in which some of the Hendon farm hands lived.

Profs. Crookshank and Brown likewise opposed Klein's findings; the former on the ground that the micrococcus described was simply the streptococcus pyogenes, and the latter on the ground that scarlet fever had existed in the region of Hendon about the time of this outbreak and consequently could not be excluded.

Edwards, in 1897, recorded some cases of follicular tonsillitis due to a mixed infection with streptococci and staphylococci, which were due to drinking milk in which similar micro-organisms were found. A study of the herd resulted in the isolation of a particular cow in whose milk these same micro-organisms were discovered.

A number of additional instances of this nature were recorded by Kober, and in the light of the evidence obtained, he reaches the conclusion that "while there is no positive proof that there is a disease in the cow which is communicable to man, as scarlet fever or diphtheria, there is nothing strained in the assumption that in these debatable instances we are dealing with a streptococcus or staphylococcus infection, and it will often be impossible to differentiate clinically such attacks from true diphtheria and scarlet fever."

There are a number of other infectious conditions in the cow, such as acute specific enteritis, puerperal and other septic fevers, foot and mouth disease, cowpox, anthrax, pleuropneumonia, rabies and tetanus, and finally tuberculosis, which clinical and bacteriological evidence shows can be transmitted through the medium of cows' milk. The recent discussions as to the intercommunicability of human and bovine tuberculosis are so decidedly in favor of those who hold to the view that they are intercommunicable, that there seems little reason to doubt the correctness of this position. The most able and finished communication of Dr. Ravenel on this subject, which was read before the Philadelphia Pathological Society one year ago, contains the most convincing evidence that has been offered on this subject. He reviews carefully and fairly the literature on both sides of the question, points out the errors of deduction made by Koch in his experiments, which led him to the opinion that "human tuberculosis differs from bovine and cannot be transmitted to cattle" and that the infection of man by bovine tuberculosis, if it happens at all, is of such rare occurrence that it is not advisable to take any measures against it. He relates all the instances of experimental infection of animals with human tuberculosis and cites Cozette, Cliquet, Huon and Bang as recording instances of cattle having become infected with tuberculosis through the sputum of phthisical attendants. To this he adds the admirable results on this side of the question obtained by himself in the laboratory of the State Live Stock Sanitary Board. He obtained positive results in three out of four calves injected intraperitoneally with ten cubic centimeters of human tuberculous sputum. In two calves and one cow injected intravenously and intraperitoneally with cultures made from the mesenteric gland of a child apparently infected through the alimentary tract, presumably from the milk supply, he obtained a rapidly fatal result, the autopsy showing the virulence of the bacillus as nearly equivalent to that of the bovine bacillus. This he attributed to the likelihood of the bovine bacillus, having been recently introduced into the intestinal tract in the milk, retaining its virulence to cows in a more marked degree than would have been the case had it remained in its new host for a longer period. In one additional experiment, with a culture from the mesenteric gland of a tuberculous child, the results were much the same.

In support of the proposition as to the transmission of tuberculosis from cattle to man, he refers to the histological identity between the disease in both, the similarity in the morphology and cultural characteristics of human and bovine tubercle bacilli, and relates a series of clearly established cases of accidental inoculation of man with the bovine tubercle bacillus. He then relates the evidence in favor of infection through the medium of food, pointing out that lesions from this source need not necessarily be limited to the intestines nor to the mesenteric glands. He relates that in one of his feeding experiments infection occurred through the tonsils of a pig. To this he adds the clinical evidence which he has gleaned from the literature in support of this view.

The conclusions he reaches are that "the evidence forces one to consider human and bovine tuberculosis but slightly different manifestations of one and the same disease and that they are intercommunicable."

There seems to be some question, however, as to the extent of the danger from this source, some authorities holding to the view that, unless the udder of the cow is diseased, there is absolutely no danger in the use of the milk. On the other hand, it has been clearly shown that the milk of tuberculous cows contains tubercle bacilli in a fairly large percentage of cases, even in the absence of disease of the udder.

Kober states that "the general results of inoculation experiments would seem to indicate that tuberculous milk may prove infectious in 60 to 70 per cent of the cases; that the infectious qualities are greatest with milk from animals with udder lesions and next from those affected with general tuberculosis."

The feeding experiments of a large number of authors has shown the milk from tuberculous cows to be infectious in about 45 to 50 per cent of the cases.

The frequency of cow tuberculosis in the United States is estimated by Salmon as probably not over 5 per cent, but he goes on to state that it is not uncommon to find 85 to 95 per cent of reacting animals in a large dairy herd; indeed, according to Ravenel, Pearson has examined herds in which every animal reacted. There is not much evidence to show to what extent this prevalence of the disease results in the infection of the general milk supply, but it strongly emphasizes the danger of the milk from certain herds.

In this connection, Ernst relates interesting investigations relative to the general milk supply of Boston. Kober quotes him as follows: "Among twenty-five rabbits inoculated with milk from a mixed source, the disease was transmitted in three, showing the danger in any milk supply from uninspected cattle."

Baumgarten, Fischer and Wesener noted the frequent occurrence, in the animals used in their feeding experiments, of tuberculous lesions of "the intestinal mucosa, mesenteric glands and liver." Kober, in quoting these observations, says: "When we next consider the large mortality of children under five years from primary tubercular ulceration of the intestines, tuberculous peritonitis and tabes mesenterica, and the fact that the food of these children consists largely of unboiled milk, the chain of evidence seems well-nigh complete."

In any event, sufficient evidence has been presented to show that the recommendation of Martin and Woodhead "that no tuberculous animal of any kind should be allowed to remain in a dairy" is not only wise but imperative.

In the light of what has been said, it is manifestly unnecessary to dwell longer upon the dangers of a defective milk supply. This array of facts emphasizes the importance of a careful consideration of the source of our milk supply. It would have been very instructive could we have had a paper this evening dealing with remedies for the evils which it has been my part to point out to you. In the absence of such a paper, I desire to remind you of the fact that this subject is one which has received very careful consideration by the Philadelphia Pediatric Society and that this society appoints annually a milk commission whose duty it is to certify to the product of certain dairies which comply with its stringent requirements. This commission has completed the fourth successful year of its existence. It certifies at the present time to the product of four dairy farms—the Walker-Gordon Farms, of Plainsboro, N. J., producing milk and cream; the Willowbrook Farms, Jenkintown, Pa., producing milk and cream; the Haddon Farms, of Haddonfield, N. J., producing milk, and the Purity Milk Farms, of Trenton, N. J., producing milk and cream.

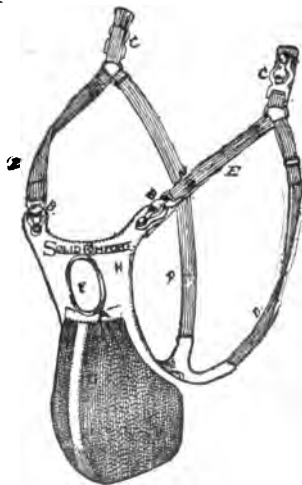
A NEW SUSPENSORY BANDAGE CONSTRUCTED ON ANATOMICAL LINES.

BY FERDINAND KING, M.D., PH.D., NEW YORK.

The prime object of a suspensory bandage is to support the testicles by suspension, but the bandages found in the shops do not accomplish this purpose. On the other hand, they act rather as a compress than as "lifts."

I desire to call the attention of the profession to an improved suspensory, in the construction of which I have made it to conform as nearly as possible to the anatomical outlines of the parts involved. In other words, I have attempted to make an artificial scrotum.

SOLID COMFORT.



The accompanying illustration shows the appliance so clearly that but few details are necessary to help the reader to an intelligent understanding of its most important features.

The body piece, H, fits smoothly over the parts over the thighs. The scrotum, with its contents, slips through an oblong, half-opening into the bag which is stitched on the front or outside. The band at A presses firmly into the peno-scrotal notch and prevents the testicles slipping upward and through the penis opening (F). And as there can be no slipping, of course there can be no chafing of the parts.

The belt-straps are attached to the upper wings of the body-piece (B B) by means of the Kantslip catch, the button of which passes through an eyelet and can be easily detached.

These straps meet the understraps at C C, where another Kantslip catch is placed for attaching the combined ends to the undershirt, thus making a "beltless" appliance. If, however the wearer prefers a complete belt, he can have it by attaching an eyeletted piece of webbing and extending it from C to C.

The body-piece and bag can be detached and washed without the elastic or metal parts coming in contact with the water.

The appliance, when properly fitted and adjusted, is really and truly an artificial scrotum, and supports the testicles without the slightest compression, displacement or pinching.—*Medical Record.*

To Regulate the Opium Habit.—The Philippine Government in considering the badge system of controlling opium-eating in the islands. The Taft government has come to the conclusion that the traffic in the drug must be restrained, and that the practical way to do it is to grant concessions for its sale and then hold the concessionaries strictly to account for their transactions. They would be allowed to sell only to persons addicted to opium and confirmed in the habit, and would be obliged to report the number of persons whom they supplied and the amounts sold to each individual daily. The syndicate that wants the concession consists mainly of Chinamen of large capital, and they are urging the adoption of the badge system of identifying opium consumers. This system is in vogue in China and proves of great service there in regulating the traffic, and shows just how much of the drug is used and can be taxed. The concessionaries would, under heavy penalties, be restrained from selling to any badge wearer more than the stipulated amount shown on the badge. The opium to be sold is that which has been boiled and prepared, and the syndicate would pay for the license to manufacture and also for dealing in the drug in a retail way.—*Philadelphia Medical Journal.*

THE ST. LOUIS Medical and Surgical Journal.

A. H. OHMANN-DUMESNIL, A.M., M.D.,

Editor and Proprietor.

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EDITORIAL DEPARTMENT.

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EDITORIAL.

IS A LARGE PRACTICE ADVANTAGEOUS TO PHYSICIANS?

There can be no question whatever that a large practice is usually a lucrative one, and necessarily it is of the greatest advantage to the physician who possesses it. It must be understood that when we speak of a practice we mean to designate one which is composed of individuals who pay for medical services rendered; not of that flotsam and jetsam of humanity which is chiefly conspicuous for its financial irresponsibility and its inability to encompass the problem of the *modus vivendi*. Such simply means work and toil with no compensation attached to it. It is a means of courting starvation and of keeping aloof that class which can aid a physician's honest work by contributing a proper and just remuneration for his efforts. So that this phase of the question does not properly enter into the consideration of the question asked above.

Reasoning from this premise, it must be conceded by any fair-minded individual that a large practice cuts off from a physician not alone time and opportunity to perfect himself in his profession, but even of keeping abreast with current medical literature. How often do we not hear the busy physician

say that he has no time to read serious medical literature, much less newspapers and fiction. He is reduced to the condition of a bear in a cage, and it is a continuous drudgery, with money accumulating, it is true, but untinted by those pleasing things which make life both pleasant and full of interest. It is a continual struggle under a handicap. In addition to this, it is a positive detriment to the patients. The number who must be seen and be attended to cuts off much of the time that should be devoted to each one, with the result that diagnosis becomes faulty, treatment imperfect, and general results bad. The lack of time not only prevents thorough examination and accurate diagnosis, but debars the physician from consulting his authorities, and thus acquiring an accurate knowledge of the different affections of his patient.

It certainly goes without saying that there will be a certain number of patients who will become dissatisfied with such treatment from their physicians, inasmuch as they do not get well, and will have recourse to practitioners with fewer patients and more time to devote to each one. The natural consequence being that they get well is that the successful man will acquire a certain amount which is legitimately his.

The one who has enjoyed a large practice will continue to do so, and his past successes will continue to a certain degree, but he will gradually find himself a member of that large and much-pitied class of moss-backs who retain their old patients, but no more acquire new ones. It is when at this stage that we have seen this class try to learn all that they had failed to acquire when the opportunity for so doing offered itself. They had a large practice at one time, and when they were old, and needed it, it had dwindled down to nothing. Some new gods had arisen and the old worshippers had turned to them. The younger generation is ambitious and industrious. The physicians of these later days attend their medical societies regularly, read current medical literature and study their cases. The older physicians must do the same or be left by the wayside. It is no longer the obtaining of a very large practice, but rather of a good one, that is the object. It is slowly dawning upon the minds of the members of the medical profession that a large practice may be a positive disadvantage to a physician. In fact, a great many look upon it as a boomerang and raise their prices, thus realizing as much and having more time at their disposal.

BOOK REVIEWS.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession throughout the world. Edited by A. O. J. KELLY, A.M., M.D.; WM. OSLER, M.D.; JOHN H. MUSSER, M.D.; JOHN STEWART, M.D.; JOHN B. MURPHY, M.D.; THOMAS M. ROTCH, M.D.; JOHN G. CLARK, M.D.; JAMES J. WALSH, M.D.; J. W. BALLANTYNE, M.D.; JOHN HAROLD, M.D.; EDMUND LANDOLT, M.D., and RICHARD KRETZ, M.D. With Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Vol. I., Thirteenth Series. 1903. 8vo. pp. 306. [Philadelphia: J. B. Lippincott Co. 1903. Price per volume: cloth, \$2.00; half-leather, \$2.50. Each series consists of four volumes.

This last issue of *International Clinics* has appeared a little behind time, which circumstance may be easily understood from the fact that there has quite a radical change been made in the editorial corps. To our mind this change has been in line with the policy steadily pursued in regard to this publication—that of continued improvement. The evidence of improvement furnished by the volume before us is indeed notable. The character of the contributions is of a higher grade and placed in a better garb than former ones have been. Altogether, the whole volume presents a better quality and a more finished appearance. The contents have been very carefully selected and give evidence of that care which has been particularly displayed by the contributors. In fact, the entire volume breathes of renewed vitality and strength and gives evidence of a new virility which cannot but be noted by all its readers. Throughout the volume these changes are to be noted, and the new life which has been infused in the *International Clinics* cannot fail to render the publication more popular than ever, and its value is naturally keeping pace with this amelioration. We have no doubt whatever that the sales of this work will become greater than ever before.

The present volume opens with a finished clinical lecture on Aneurism of the Descending Thoracic Aorta, by Dr. William Osler. This lecture, which is fully illustrated, is followed by an appendix in which is given the histories of the fourteen cases observed in the Johns Hopkins Hospital since its opening. This

forms, beyond all doubt, one of the most important contributions to the literature of the subject which has been made in late years. The lecture and appendix occupy 40 pages. *Nauheim Methods in Chronic Heart Disease with American Adaptations* is a richly illustrated special article by Dr. Thomas E. Satterthwaite, who has devoted much care and attention to this therapeutic method, which is not yet as widely known as it deserves to be. A clinical lesson of more than ordinary value is that by Prof. Ernest Firge on the Treatment of Chronic Urethritis. He does not consider a case cured in which pus corpuscles can be found, the absence of the gonococcus being of no value. The department of this volume devoted to Surgery is rich in its material and many valuable clinical lectures are given. The Enduring Results of Total Bilateral Resection of the Cervical Sympathetic in Basedow's Disease is illustrated by Prof. Thomas Jonnesco and his results are certainly remarkably good ones. The departments of Pediatrics and Orthopedics contain excellent articles.

There are two special articles in this volume, and each one is deserving of careful reading. They are on Functional Reversion and Its Import in Medical Practice, by Dr. A. F. A. King; and the General Principles of Embryology, by Dr. J. W. Ballantyne, the well-known authority on embryology. The rest of the volume is devoted to the Progress of Medicine during the Year 1902, and is prepared by Drs. Willard Watson and Henry W. Cattell. This is a very able and thorough review, and not the least valuable portion of this volume. We have not sufficient space to call attention to all the good articles which are laid before us in this volume of *International Clinics*, but our readers may form an idea of all the medicoliterary wealth which it affords them. That this volume will increase the already large circle of subscribers which it possesses we do not doubt.

Practical Handbook of the Pathology of the Skin. An Introduction to the Histology, Pathology and Bacteriology of the Skin, with Special Reference to Technique. By J. M. H. MACLEOD, M.A., M.D., M.R.C.P. 8vo. pp. 408. With Eight Colored and Thirty-two Black and White Plates. [Philadelphia: P. Blakiston's Son. & Co. 1903. Price, \$5.00 net.

The skin is an organ which has been daily growing in importance during the comparatively last few years, and the literature devoted to its diseases and the various other changes which it undergoes have already assumed enormous proportions. Not only is it in the number of separate articles that this increase is noted, but also in the large number of books which are published. These, it must be conceded, are for the

most part written by capable men, and are all written in a scientific spirit and with an endeavor to be up to date. It is largely in the line of text-books and treatises that this activity has manifested itself, making the appearance of the one before us so much the more noteworthy.

Unna's *Histopathologie der Hautkrankheiten*, translated into English by Norman Walker, is beyond doubt the largest work on the histopathology of the skin which has yet appeared. The book before us does not aspire to be a treatise, but rather a handbook for the use of students of dermatology, and it is the first one published in English. It is based upon the demonstrations given by the author in the Dermatological Laboratory of Charing Cross Hospital, and this alone will serve to show that it is practical in scope and that especial attention has been paid to technique. The instruments which are necessary are first given, and such useful information as imbedding materials, stains, and those other helps to exact microscopic work are closely defined. In fact, the author is very systematic in the treatment of his subject, a fact which naturally enhances the value of his book as a reliable and trustworthy guide.

One feature of this text-book which deserves special mention is the elaborate manner in which the author has considered stains. We find the principles discussed very fully, and later on, throughout the body of the work, are given the particular applications in certain investigations. Throughout this we may note some reminiscences of Unna, with whom the author was associated for quite some time. The completeness of the book is more than creditable. He has not permitted anything to escape him, and his references to the work of others are numerous and well chosen. He takes up processes and diseases of the skin seriatim, concluding with the moulds and animal parasites. Bacteria naturally come in for a large share of attention, as he very closely follows Unna and Sabourand in this.

We could elaborate on all the good points of this book did not lack of space forbid our doing so. What we can say with truth is that it is the best and most practical work on the subject which has been published in English, and we are certain that everyone who has an interest in skin diseases will obtain a copy of it. It is well illustrated with 100 illustrations on 40 plates, eight of which are colored. With but a very few exceptions they have all been drawn by the author, and reflect great credit upon his artistic ability.

The publishers have made a handsome book of this, and we have no doubt that it will meet with a great success. It certainly should be recommended by all teachers of cutaneous medicine, as it is a fully deserving handbook. O.-D.

LEE'S SERIES OF POCKET TEXT-BOOKS.

Bacteriology. A Manual for Students and Practitioners. By FRED. C. ZAPFFE, M.D. Series edited by BERN B. GALLAUDET, M.D. 12mo. pp. 350. Illustrated with One Hundred and Forty-six Engravings and Seven Colored Plates. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, cloth, \$1.50 net; flexible leather, \$2.00 net.

This little book may lay claim to being one of the best published in this series. The author has made it as valuable and as thorough as it is possible to do so in the limited space accorded to him. He considers his subject in a very systematic manner, and as a guide to students this little text-book has very few superiors. Practitioners will also find that they can profit by its contents and will be enabled to glean many valuable hints connected with bacteriology. This department of medicine can no longer be neglected, as its presence as well as usefulness is making itself daily felt in every specialty, as well as in general medicine and surgery, and no one can consider himself competent in medicine unless he has mastered the principles of this science.

The book is so arranged that each chapter represents the subject presented in a lecture, and no unnecessary discussion is permitted to obtrude itself. Those things which we know, and which have a practical bearing on medicine, are the ones considered. This is certainly a good trait of the book, and one which should recommend it. We are certain that all those who possess themselves of a copy and carefully read it will find themselves rewarded many times over.

The book is well printed, the plates are most excellent, and the binding is certainly done in the most finished style. It is a credit to the publishers in every respect.

L'Administration intestinale des Medicaments. (Etude Experimentale et Clinique). Par M. le Dr. SAMUEL BERNHEIM. 8vo. pp. 96. [Paris: A. Maloine, 91 Boulevard St. Germain. 1903. Prix, 2 francs.

The Intestinal Administration of Medicines. (An Experimental and Clinical Study.) By Dr. SAMUEL BERNHEIM. 8vo. pp. 96. [Paris: A. Maloine, 91 Boulevard St. Germain. 1903. Price, 2 francs.

This is certainly a very thorough study of the various methods of administering medicines. The author prefers that in which the intestinal tract is utilized for the absorption of medicines, and he passes in review all the methods which have been devised to render them insoluble in the stomach and soluble in the intestines. Keratin, which was at one time looked

upon as an ideal coating, is rejected by him. All his opinions are based upon a series of clinical and chemical experiments, and, therefore, possess that weight necessary to make them of value. He concludes that the best method is to thoroughly mix the medicine with a neutral resin, and then coat it with a special form of gluten. Whilst this is not perfectly ideal, it is the best devised up to the present. This little book is well worth a careful reading and study.

Le Dispensaire Antituberculeux. Par le DOCTEUR SAMUEL BERNHEIM. 8vo. pp. 102. Avec 18 figures intercalées dans le texte. [Paris: Rousset, 36 rue Serpentine. 1903.]

The Antituberculous Dispensary. By DR. SAMUEL BERNHEIM. 8vo. pp. 102. With 18 illustrations. [Paris: Rousset, 36 rue Serpentine. 1903.]

The author of this little monograph has been an indefatigable worker for the prevention and cure of tuberculosis. In the book before us he explains and makes clear the method of treating the disease in dispensaries built for the purpose. His illustrations show the manner in which these dispensaries are built and the various conveniences with which they are provided. The entire plan is not only a most excellent one in theory, but it has been found equally so in practice, more particularly to apply to the numerous cases which are found in large and crowded cities. All those who are interested in the subject of tuberculosis should read this little work, as it is replete with good and original ideas and suggestions applicable to the great struggle for the repression of tuberculosis.

Album of Smallpox Cases. (Discrete.) Taken at Quarantine 1901-1903 by R. D. Hudson, M.D. 1903. Price \$3.00 net.

This is a photographic album of twenty-five cases of discrete smallpox observed at the St. Louis Quarantine Hospital and a very valuable collection it is. A physician who possesses this album need not go and see the cases, as a study of these pictures will make him almost an expert in the diagnosis of that much dreaded disease, variola. We have here presented to us the trouble at various dates of the eruption, both in whites and blacks, and this is certainly an exact as well as interesting method of presenting the subject. Dr. Hudson has not only exercised rare discrimination in his choice of subjects, but he has proven his ability as an artistic photographer, as the pictures which he gives are sharp, clear and true in every detail of which authors speak.

This album is of particular value to medical practitioners, from the fact that it can be used as an adjunct in reading literature on smallpox. Another valuable feature in connection with it is the fact that it is composed of actual photographs and not

reproductions in half-tone or lithographic work. As all our readers will readily understand, no illustration can surpass a true and well-made photograph. We are more than pleased with this set of illustrations and can heartily commend it to all who desire to have such a work and we would recommend them to buy a copy. The price asked for it is a remarkably low one, as the album is worth it many times over. O.-D.

"Wild Oats." A Sermon in Rhyme. By MAURICE C. HIME, M.D., LL.D. 12mo. pp. 41. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, 25 cents net.

This is a well-written, well-considered piece of rhyme, by one who is earnest in his endeavor and very rightfully thinks that it is wrong for young men to "sow their wild oats." He has annotated his lines with quotations from sacred script, and every one who reads his effort will recognize the justice as well as the right of his views. Although short, it is powerful, and many will find themselves much better from a serious reading of it.

LITERARY NOTES.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

"Wild Oats." A Sermon in Rhyme. By Maurice C. Hime, M.A., LL.D. 12mo. pp. 41. [Philadelphia: P. Blakiston's Son & Co. 1903. Price 25c net.

Le Dispensaire Antituberculeux. Par le Docteur Samuel Bernheim. 8vo. pp. 102. Avec 18 figures intercalées dans le texte. [Paris: Rousset, 36 rue Serpente. 1903.

L'Administration intestinale des Médicaments. (Etude Expérimentale et Clinique.) Par M. le Dr. Samuel Bernheim. 8vo. pp. 96. [Paris: A. Maloine, 91 Boulevard St. Germain. 1903. Prix 2 francs.

Practical Handbook of the Pathology of the Skin. An Introduction to the Histology, Pathology and Bacteriology of the Skin, with Special Reference to Technique. By J. M. H. Macleod, M.A., M.D., M.R.C.P. 8vo. pp. 408. With Eight Colored and Thirty-Two Black and White Plates. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$5.00 net.

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Bacteriology. A Manual for Students and Practitioners. By

Fred C. Zapffe, M.D. Series Edited by Bern B. Gallaudet, M.D. 12mo. pp. 350. Illustrated with one hundred and forty-six engravings and seven colored plates. [Philadelphia and New York: Lea Brothers & Co. 1903. Price: cloth, \$1.50 net; flexible leather, \$2.00 net.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession throughout the World. Edited by A. O. J. Kelly, A.M., M.D.; Wm. Osler, M.D.; John H. Musser, M.D.; John Stewart, M.D.; John B. Murphy, M.D.; Thomas M. Rotch, M.D.; John G. Clark, M.D.; James J. Walsh, M.D.; J. W. Ballantyne, M.D.; John Harold, M.D.; Edmund Landolt, M.D., and Richard Kretz, M.D. With Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Vol. I., Thirteenth Series. 1903. 8vo. pp. 306. [Philadelphia: J. B. Lippincott Co. 1903. Price per volume: cloth, \$2.00; half-leather, \$2.50. Each series consists of four volumes.

The New York Medical Journal and the Philadelphia Medical Journal have consolidated and issued the first number June 20 last. The consolidated journal will be edited by Dr. Frank P. Foster, assisted by Dr. Kenneth W. Millican. A. R. Elliott Publishing Co. will issue this new publication, whose general offices and editorial rooms will remain at No. 66 West Broadway, New York, with branch offices in Philadelphia and Chicago. This consolidation will add much strength and value to its two component publications and we anticipate it to result in the best medical weekly of this country.

The American Congress on Tuberculosis has had important changes made in its arrangements. The previous plans of the Council were to hold the Congress in St. Louis in 1904. The time and location have been changed. As at present arranged, it will take place at Washington, D. C., April 4-5-6, 1905. Dr. George Brown, of Atlanta, Ga., is practically the executive officer of the Congress, and all who desire to present papers before the Congress should apply to him. We are sorry that St. Louis lost the Congress, but we are certain that the meeting in Washington will be a successful one.

NEW INVENTIONS.

724,046. Instrument for Intubation of the Larynx. Frank E. Sampson, Creston, Iowa. Filed Aug. 15, 1902. Serial No. 119,817. (No model.)

Claim.—1. In an instrument of the class described, the combination of a handle, a stationary, tube-gripping, member disposed at an angle relative to the handle, a movable, tube-gripping, member connected with the stationary one, a knob movable longitudinally of the handle, a spring-wire connected with the knob extended parallel with the handle curved to about the angle of the stationary gripping member and fixed to the movable gripping member and exerting its resiliency to operate the movable gripping member in one direction.

2. In an instrument of the class described, the combination of a body portion, a part extending substantially at right angles to the body portion, a knob slidingly connected with the body portion, and a spring-wire connected with the knob at one end, extended substantially parallel with the body portion and connected with the forward end of the body portion and so shaped that the resiliency of the spring will tend to force the forward end of the spring-wire away from the outer end of the stationary member, and a movement of the knob toward the outer end of the stationay member will bring the forward end portion of the spring-wire toward the forward end portion of the stationary member.

3. In an instrument of the class described, the combination of a stationary body portion, having a rigid extension at its forward end substantially at right angles to the body portion, a knob slidingly mounted on the body portion, and a spring-wire connected at one end with the knob extended substantially parallel with the body portion and connected at its end with the end of the extension on the body portion, and bowed rearwardly from said extension.

4. In an instrument of the class described, the combination of a straight body portion, an extension at the forward end of the body portion having a notch in its lower end, a knob slidingly mounted upon the straight body portion, and a spring-wire detachably connected with the knob extended substantially parallel with the straight body portion arched over the forward end of the straight body portion, and extended downwardly in the rear of the extension, and having its

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downwardly-inclined portion arched rearwardly from the extension, for the purpose stated.

5. An intubation-tube introducer, comprising a straight body portion, an angular shank at its rear end having a notch therein, an extension at its outer end substantially at right angles to the body portion, and having a notch in its lower end, a knob slidably mounted upon the angular shank, a spring-wire detachably connected with the knob extended substantially parallel with the straight body portion, arched over the outer end of the straight body portion, detachably connected with the notch in the lower end of the extension, and arched rearwardly from the extension, a handle having an angular opening in its forward end to receive the angular shank, and also having a notch in its lower portion intersecting the said opening, and a spring-lever detachably pivoted to the handle having a hook on its rear end to pass under the body portion of the handle, and also having a hook on its forward end to pass through the notch in the handle and to enter the notch in the shank when its rear end is hooked under the handle, for the purposes stated.

724,164. Catch for Instrument Cases, &c. Henry L. Curren, Newark, N. J. Filed Sept. 12, 1902. Serial No. 123,072. (No model.)

Claim.—1. In a catch, an aperture hasp, a resilient arm normally extending across said aperture near its edge and a rotary post adapted to enter said aperture and having a recess to receive the said resilient arm.

2. In a catch, a hinged hasp having near its free end an aperture being provided with a circumferential recess in the wall of said aperture, a resilient arm working in said recess in the plane of the aperture and normally projecting into said aperture, and a rotary post adapted to enter the said aperture and having a lateral recess to receive the said resilient arm.

3. In a catch, a swinging hasp apertured near its end and having a circumferential recess in the walls of said aperture, a resilient arm normally projecting from said recess into the aperture, a rotary post adapted to enter said aperture and having in its side a recess adapted to receive said resilient arm, a spring normally holding said post with its recess in position to receive the arm, and means for turning said post.

4. In a catch, the combination with an apertured hinged hasp having a resilient arm projecting into said aperture, of a rotary post or stud adapted to enter said aperture and engage said arm, a spring at the base of said post adapted to normally hold it in locking position, and a finger-piece at the other end of said post having an inclined surface at its outer end adapted

to push the resilient arm to one side on entering the hasp-aperture.

5. In a catch, an apertured hasp member, a resilient arm mounted thereon and normally lying across said aperture near its edge, and a second member having a rotary post adapted to enter the aperture and provided with a recess to receive the resilient arm, a spring normally holding said post with its recess in position to receive the resilient arm, and a finger-piece for turning said post.

MELANGE.

Beri-Beri and Rice Eating.—Dr. Rost's Theory of the Origin of the Disease Vigorously Combated.

To the Editor of the Evening Post :

SIR—Allow me to observe that Dr. E. R. Rost's theory of the identity of polyneuritis of fowls and human beri-beri, to which you refer in the *Evening Post* of today, falls to the ground in the presence of the facts that rice is eaten raw by chickens, while human beings of east Asia eat it well-cooked, which destroys all germs. This was determined in 1890 by Dr. Eijkman, of the Dutch East Indies, who had originally proposed the theory which Rost now takes possession of as his own. The conclusions of such eminent beri-beri specialists as Drs. von Vorderman (inspector of the medical service of Java and Madoura), Von Dieren, Pifnaffel, Vonderburg, Forher, Von Gorcom, Van Leeut and Van der Elst, whose writings on the ethnology of beri-beri will be found in the Dutch journals of Netherland East Indies, are opposed to this theory. These gentlemen thought that there was only an "appearance" of identity between the two diseases and that such researches on fowls were without value, because polyneuritis of fowls may result from diverse causes which have no connection with rice. As Prof. Bordier, the medical geographer of Paris, says: "Beri-beri is a disease which the more one studies the less he knows about."

Will you permit me further to inform you that the charcoal habit of the Japanese, who suffer every summer enormously from the disease beri-beri, is carried by the emigrating coolies to Hawaii and the Fiji Islands, with resulting outbreaks of beri-beri, as in Japan. I have always, since my sojourn in Tokio,

maintained in numerous articles, supported first by my experience with the disease in Japan and also by my examination of outbreaks of beri-beri on ships in New York harbor, that beri-beri is due to carbonic-acid poisoning. Japanese laborers, sitting around their Japanese stoves, smoking or drinking their everlasting charcoal-heated tea, in the damp atmosphere of the rainy season, were in my opinion undoubtedly poisoned by the fumes of charcoal. In Tokio it is the lower lying wards which have the most cases of beri-beri.

In ships coming to New York, loaded with carbon-producing cargoes—thousands of tons of raw sugar, with hemp, graphite (pure carbon), or with seventy-five negroes from the Navassa phosphate island, confined in a room twenty-five feet square and five feet high for thirteen days—beri-beri broke out. Burnt coffee cargoes (all charred from being shipped too green and with resulting fermentation) from Java also caused beri-beri. If I could enumerate the outbreaks which I have investigated, you would see that in every instance there was an elimination of carbonic acid gas. The effect of carbon on human blood is a deficiency of hemoglobin, without deficiency of red blood corpuscles, a paralysis of peripheral nerves, from which result oedema and the respiratory and cardiac complications, through the pneumogastric nerve filaments.

That a germ is not the cause of beri-beri is clearly proved by a case reported by a Japanese specialist, Dr. Miura, on Mount Fuji, 12,000 feet above sea level, in December. If a germ developed on top of Fujiyama in that climate, why does it not develop at sea level in December? It never does. Beri-beri ceases naturally in Japan as soon as the cool north wind (monsoon) begins to blow. It exists there only in the hot rainy season—June, July and August—when the atmosphere holds down the gases from the millions of charcoal stoves. Besides, the fowls of Japan are fed on the raw rice constantly and there is never an epidemic of polyneuritis of fowls there. Had it been so in the last thousand years, it would have been investigated to a finish, for the rooster of Japan is trained to crow the hour at night. He is the night-clock of the empire. Still further, the baby food of Japan is rice meal, made into cakes. There is no cow's milk in Japan to take the place of the mother's breast. Had rice meal been the cause of beri-beri outbreaks in Japan in summer time (there is no beri-beri at all in winter) all the children would have been attacked. As a fact, no children in Japan ever have beri-beri. It is a disease of adults.

ALBERT S. ASHMEAD, M.D.,

Late Foreign Medical Director Tokio Hospital, Japan.
New York, Aug. 16.

MISCELLANEOUS NOTES.

Severe Reflex Pain.—J. H. Tilden, M.D., of Denver, in the June number of the *Chicago Medical Times*, in an article advocating the use of tampons in gynecological practice, reports, among others, a case which was characterized by severe reflex symptoms and which had not yielded to the treatment accorded by two other practitioners. Dr. Tilden's procedure was the introduction of a glycerine tampon, and the administration of antikamnia in ten-grain doses (two-five grain tablets) to relieve the pain. The tampon was removed each night at bedtime, and followed with hot water injections. The patient, on being discharged, remarked that since following this treatment she could run the sewing machine without the usual pain and tired feeling.

Gynecological Hints.—In ulcerations of the uterus most excellent results follow the use of Medicated Uterine Wafers (Micajah & Co.)

A careful analysis of the various special methods of therapeutic treatment used by successful gynecologists the world over shows that they are but varied ways of accomplishing three necessary changes of condition:

1. Equalize the circulation of the pelvis.
2. Stimulate absorption and excretion.
3. Tone up the muscular tissue.

All the time keeping the genital canal as clean as possible.

The use of the hot-water douche in connection with these Medicated Uterine wafers seems to fulfill every requirement of the ideal method.

Dioivburnia in Uterine Disease.—"I have used Dioivburnia for three years in my practice, and would not be without it, as there is no remedy that will take its place in Dysmenorrhea and other uterine diseases."—STEPHEN E. SMITH, M.D., Oklahoma City, O. T.

Dermapurine in Skin Diseases.—

WASHINGTONBORO, PA., May 7, 1901.

DERMA REMEDY CO. St. Louis, Mo.:

Gentlemen—Some time ago I received from you samples of Dermapurine, and I am happy to state that in its therapeutic application it gave excellent results. I prescribed it in cases of pruritis ani, hydrosis, prurigo, and several other affections of the skin, and in all these cases satisfactory results were secured.

W. G. BINKLEY, M.D.

Neurilla has been tried by me, and has proven successful in cases of nervousness. I am prescribing it with very good results wherever a nerve-calmative is indicated. I have never before given a testimonial of any kind, but I think so much of your preparation that I cannot help writing to you as above.

M. WOLFF, M.D.

58 Second Avenue, New York City.

Utility of Coca Wine.—One objection to the use of alcohol medicinally is its commonly accepted action as a stimulant, with a supposed period of depressing reaction. Whether there is really such a reaction period or not following small and frequently repeated doses of alcohol is not generally accepted. It is, however, agreed that the combination of coca with alcohol in a mild wine—such as Vin Mariani—affords a nutritious stimulant from which there is no reaction. Before the influence of the alcohol has passed the sustaining action of the coca will have commenced, and a period of tone supervenes which sustains the system. It is because of this peculiar property that Vin Mariani is of such value as an adjuvant in all convalescence where a mild stimulant is indicated.

Sanmetto in Prostatic Hypertrophy with Vesical Complications.—I have waited to express my opinion until I had a case in which I might apply the critical or crucial test to Sanmetto. Finally one of prostatic hypertrophy with serious vesical complications was presented, in which, having employed Sanmetto, both my patients and myself are much more than pleased with results. Henceforward Sanmetto goes into my armamentarium for all such and similar cases.

Bartow, Fla.

J. NEWTON SMITH, M.D.

Daniel's Conc. Tr. Passiflor. Incarnat. in Nervous Prostration.—Daniel's Conc. Tr. Passiflora Incarnata is the ideal remedy for nervous prostration, because it is an efficient stimulant, has no cumulative effects, and is never followed by mental or physical depression. It is the best of hypnotics when wakefulness and vigilance are to be overcome, since it acts primarily upon the nerve centers by relieving morbid conditions. This is a distinction that the physician will readily appreciate.

Coca Increases Assimilation.—The efficacy of Vin Mariani as a tonic does not lay in its property as a nervous-stimulant, but in the more effectual and lasting property arising from improved assimilation, thus provoking continued support. This is scientifically explained by the physiological action of coca upon the several systems of the human organism. Aside from any cerebral action, coca is a depurative of the blood, freeing the stream from a burden of waste products, which, manufactured through ordinary wear and tear in the vain struggle for existence, may, because of some physical imperfection, have been improperly eliminated. The presence of these waste products not only interferes with assimilation, but precede a long train of following troubles such as rheumatism, gout, diabetes and liver and kidney disease. But man must work, while habit or environment is not always hygienically conducive to normal repair; yet, knowing this, perhaps, he still must labor on under unfavorable conditions. It is in such cases that coca acts as a remedy veritably magical. Consider the poor Indian,

who toils, amidst the greatest hardships, over the bleak and rugged Andes at an altitude where mere existence is a serious problem! He is supported through these struggles by coca alone. Similar systemic results to those that beset him are met with in the midst of the most advanced civilization, and may be offset in a similar way. Scientific cleverness has adapted the primitive methods to modern conveniences. Vin Mariani presents all the efficacious possibilities of coca in a form that is at once convenient, agreeable and positive.

Putrefactive Processes.—As an antiferment, to correct disorders of digestion, and to counteract the intestinal putrefactive processes in the summer diarrheas of children, Listerine possesses great advantage over other antiseptics, in that it may be administered freely, being non-toxic, non-irritant and non-escharotic; furthermore, its genial compatibility with syrups, elixirs, and other standard remedies of the materia medica renders it, an acceptable and efficient agent in the treatment of diseases produced by the fermentation of food, the decomposition of organic matter, the endo-development of fetid gases, and the presence or attack of low forms of microzoic life.

An interesting pamphlet relating to the treatment of diseases of this character may be had upon application to the manufacturers of Listerine, Lambert Pharmacal Co., St. Louis.

Narkogen is one of the latest preparations placed upon the market by The Tilden Co. It is a most valuable hypnotic as well as an anodyne and anti-spasmodic. All those who have had occasion to use it have none but words of praise for it. Its principal value lies in the fact that it possesses an absolute control in relieving the manifold conditions of unrest, insomnia and those other conditions of a perturbed nervous organism which so frequently arise in the course of disease and render miserable the condition of patients who not only desire but are in need of rest. That the claims made for this preparation are not exaggerated is made self-evident by an examination of the formula, which is as follows:

NARKOGEN (TILDEN'S).

Each fluid dram contains:

Hydrate of Chloral.....	grs. x
Potassium Bromide.....	grs. x
Hyoscine Hydrobromate.....	gr. 1-200
Narkine (Tilden's).....	gr. ss

It will be seen from this that all essential conditions are fulfilled and results are certain. The dose is from one-half to one fluid dram in water, repeated as occasion requires.

Neurosine is composed of no new or untried drugs, but such as are well and favorably known to the profession as being the most efficient in the treatment of neurasthenia, insomnia, hysteria, neuralgia, chorea, epilepsy mania, migraine, convulsive and reflex neuroses, restlessness of fevers, etc. In the combination of these standard medicinal agents, the purest drugs obtainable are used, which largely accounts for the positive effects of Neurosine. There is no "secret" as to the ingredients of which Neurosine is composed. The Dios Chemical Co., of St. Louis, who manufacture Neurosine, circulate the formula freely to the profession, having confidence that they will not permit substitution. Physicians cannot be too careful in guarding against substitution and deception, by indicating *plainly* the name of Neurosine. Colored bottles are often used to hide the imperfections of manufacture. It is

conceded that Neurosine is the most powerful neurotic and anti-spasmodic attainable (contains no opium, morphine, chloral or other deleterious drugs). The manufacturers will furnish free trial bottle to any physician who may not be acquainted with the efficiency of Neurosine. Literature with formula and hundreds of commendations from the most influential members of the profession mailed on application.

Celerina after Removal of Alcohol.—After the removal of alcohol, Celerina, given in doses of from one-half to one ounce every four hours, is speedily followed by the most characteristic symptoms of improvement.



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ORIGINAL COMMUNICATIONS.

**SHOULD A SYPHILITIC BE INFORMED OF THE NAME
AND NATURE OF HIS DISEASE?**

BY A. H. OHMANN-DUMESNIL, OF ST LOUIS.

This is a question in medical deontology which is not only fraught with much interest but which is important from many points of view and which, unfortunately, is but lightly touched upon in most of our works on syphilis and venereal diseases. And yet, when it is fairly considered, it is one of the highest importance, more particularly when taken from the point of view of the manner in which a physician should conduct himself and what should be the rule by which to guide himself in making any utterance on the matter. It is certainly an understood thing that the professional secret should be kept inviolate and that none beside the patient should be made acquainted with his ailment. This is particularly the case with venereal troubles, which have earned for themselves on this very account the name of "secret diseases," because they were shameful diseases, so-called for the reason that they affected the shameful parts (pudenda). A secondary meaning naturally attaching to the name was because they were a dishonor—a shame—and regarded as the result of shameful practices, such as illicit intercourse or with shameless individuals, a course of procedure characterized as shameful. From all of this it is easily understood that the rule of practice with a physician should be to refrain from letting everyone know of what he has learned in strict confidence and under the implied seal of secrecy. This

is certainly a well understood matter and is the rule of practice with all members of the medical profession. The question which is to be considered is whether a patient, ignorant of his trouble, should be frankly told that he has syphilis, if such be the case. Is it a correct procedure, is it judicious, and are there some cases in which the truth should be withheld? Another question which naturally suggests itself is whether it is a safe procedure to give this information.

The whole question of syphilis and deontology has been fully considered in a volume devoted to the subject by Dr. George Thibierge,* of Paris. The question to be taken up here forms but one chapter in this monograph and the author's ideas are so divergent from the generally accepted practice in this country that it was considered not inappropriate to write a few lines on it. In order to put some order in the consideration of the question, a rough classification of patients has been made and a consideration of each variety taken up and briefly considered. Only patients seen in private practice will be noted, for hospital practice as well as free dispensary practice are *sui generis* and the rule of conduct in public practice could hardly be adopted in private practice.

1. The first type to consider is the young man who is unmarried. In his case the physician must first ascertain whether he is a syphilomaniac or not. This class of neurotics is the most difficult to prepare for the verdict, and the rule holds equally true in the case of all syphilitics, no matter what the social condition may be. The syphilomaniac is not perfectly sane—he is affected by a monomania on the subject—and it is a very difficult matter to convince him of the truth. He rushes from one physician to another to obtain an opinion that he is not syphilitic, and when he obtains it his fear makes him doubt and he leads a life of self-inflicted torture. He must be handled firmly, and yet with some consideration—he must be made to understand that he is before someone who knows and will tell the truth. A little diplomacy will succeed in allaying his fears to a great extent, in a comparatively short time, and then it will be plain sailing for the physician.

The general rule which it is best to adopt with unmarried men who are not syphilophobics is to plainly announce to them

*George Thibierge. Syphilis et Déontologie. Paris, 1903.

that they have syphilis. Very naturally this procedure produces a shock, but that is of short duration and the case is easily handled after that time. This applies to those who are intelligent and still possess a certain amount of moral sense. Carefully impress upon the mind of every syphilitic that the fear of the disease does not avert the danger. It is not necessary that any patient live in constant dread of that which neither exists nor is possible. The advantage of making the announcement lies in the fact that it prepares the patient for the siege which he must undergo in the treatment of his disease. There is the added advantage that proper directions may be given which will have the effect of making him more careful and, in addition, will prove an inducement to him to be faithful in following both the treatment and such directions as may be deemed necessary.

If, on the other hand, the patient be one of those who are reckless; he does not care what his disease is and looks upon it more in the light of an ordinary episode than of the serious matter which it really is. It is one of this class of individuals whom it is most difficult to treat, as the fact that he pays little attention to the disease induces an equal carelessness in following treatment. This is the one for whom no hesitation need be felt to tell him plainly that he has syphilis. Any injunction not to infect others will meet with the same carelessness. He is a moral degenerate.

2. The case of the female who has never married is a most difficult as well as vexing problem to solve, so far as the propriety of announcing to her what her disease is, and is one which certainly requires much care in its handling. To begin with, the nature of a girl is naturally sensitive and be it understood that I am at present speaking of such a one as has been properly brought up amid environments such as are found in the homes of proper parents. A girl reared with such surroundings is apt at some time or another to yield to the solicitations of one whom she imagines she loves; and he, unfortunately, as but too frequently happens, having but the one thought in mind, will overcome her scruples and infect her. She, conscious of what she has done, fears discovery and will refuse to see a physician from the fear that he will betray her, although she is completely ignorant of the nature of her affection. It is here

and in such a case that a more than ordinary amount of diplomacy must be shown. The announcement of the brutal truth might lead to the most serious consequences. Such a case needs most careful handling. The patient must be gradually prepared for the truth, and the manner in which this is to be done can be determined only by the nature, disposition and whatever hints are furnished by the patient herself. The fear that her parents or intimate friends may discover her relations with the man in the case will often make her betray herself and elicit admissions which will greatly aid the physician in formulating his rule of conduct, so far as the question of informing her of the truth of the whole matter is concerned. That this must eventually be done does not admit of the least doubt, and that it is both necessary and proper to do so is self-evident. Such a course will redound to the advantage of the patient, as it will insure faithfulness in the following of the treatment laid down. Otherwise, she will not observe that care and attention which are absolutely essential to a successful termination of the case. It must not be forgotten, however, that those who are members of the lower classes or who are entirely out of a class are very difficult to handle in a proper manner. Like their male congeners, they are more or less reckless and do not care so long as they are able to get about and enjoy themselves in their own peculiar manner. Far from feeling any compunction in infecting others, they try to do so and rather glory in the number they have added to the large army of syphilitics. In fact, they constitute a dangerous class of moral irresponsibles whose very presence is contagion. They do not care for others and will not take care of themselves. To such it is best to announce the brutal truth. There need exist no fear of affecting their sensibilities, for they do not possess anything so inconvenient or annoying as that. They are morally calloused and cannot be shocked.

3. This is a class which requires rather careful handling, on account of the possible complications which suggest themselves. The individual in this class to whom I wish to refer is the young man engaged to be married at no distant period from the time he presents himself to the physician for examination. It is in such cases that it is best for the physician to be frank. The best advice to give the physician is, after be-

ing thoroughly convinced that he has a syphilitic before him, not to hesitate to announce the condition which is present. Enter into all the details that may be asked. The shibboleth in such cases is, "Save the girl by all means." Save an innocent, unsullied female from contamination. Do not run to her parents or to her with your discovery. That would be a violation of the professional secret. Let your patient make the announcement if he considers it absolutely necessary to do so. It must be remembered that the future wife is not the only one who should be saved from contamination; there are possible future generations who must also be protected, although still unborn. These facts, when impressed upon a young man, will impress their full force upon him, and cause him to consider the propriety of taking any rash or false step—apt to have such fearful consequences in its wake. No one in his sane senses desires to have a progeny which shows to every one the evidence of his father's misfortunes. And yet, how many heed the note of warning given to them? Later on they have full time in which to make their bitter regrets. Youth is very apt to be rash, and to act in a manner which is inconsiderate. The inevitable consequences manifest themselves, and then there is time but for unavailing as well as useless and impotent regrets. The young man in this unfortunate position must not be abandoned to despair nor left without hope. He must not be left to the possible gloomy clutch of melancholy. On the contrary, he should be shown the thin ray of hope which still exists for him. It is here that the physician may show himself a friend as well as a counsellor. It is in circumstances like this that he can demonstrate his value as a medical adviser and treat the mental trouble as well as the physical one which is burdening his patient. Tell him the truth, and console him with the prospect that he may be able to get married in a few years with safety to all who may be concerned in the matter. Point to him the probability of having his wife remain uninfected, of having healthy children and a happy home, and you have then done your full duty both as a man and as a physician.

4. The case of a married man is one which requires caution, discretion and judgment to properly handle it. Careful handling must be the constant watchword, and nothing must be per-

mitted to escape the watchful eye of the physician. He must always be guarded and constantly on the alert. Several circumstances must be taken into consideration before any error is committed by the medical man. Questions of inquiry must be formulated in such a manner as not to lead to the idea that they are prompted either by curiosity or impertinence, but rather by an earnest desire to learn the truth solely for the patient's benefit. No statement is to be made at the beginning of such inquiry as will furnish the patient with practical knowledge concerning his disease. Let us, for instance, assume that he has always conducted himself in a perfectly proper manner and has been faithful to his marital vows. To tell him point blank that he has syphilis is equivalent to stating that his wife has infected him. This is certainly a most grave charge to make, and apt to produce a series of domestic troubles without end. It includes with it the charge of infidelity on the part of the wife, and that of the graver fault of having infected her spouse. It is the perpetration of a physical as well as of a moral wrong. In fact, it constitutes a heinous offense against the family as well as against society. These doubts, suspicions and conclusions must never be given an opportunity to arise. Whilst a case may be very plain on its face, too much knowledge of the true condition of affairs should not be shown. In fact, it is best to begin by giving strong expression to a doubt, and this for a purpose. The very expressing of a doubt offers a very good opening for questions so formulated as to obtain a complete history of all the various acts of the patient, and, in that manner, of any possible error in his conduct. Directly he acknowledges such his cause against his wife is lost. He hasn't a leg left upon which to stand. This he will readily understand without telling him so in as many words. Again, suggest the possibility that his trouble is nothing but a simple affair which can be easily cured, and it is more than likely that a full confession will be made if there has been a wrongdoing. Such a course of procedure has its dangers. Either the patient will confess nothing or will doubt the ability of his professional consultant, and in the one case or the other he will seek another medical adviser. The avoidance of such a *contretemps* must be sought. The whole matter is certainly one which is very delicate to handle. Diplomacy is the watchword and

constant guide for action. All possible methods to avoid domestic trouble should be employed. If there exist no doubt of the man's faithfulness to his wife, the rule of action should be to so manage him as to be able to gain time. During this time see the wife, and be still more diplomatic with her, for women are shrewd and not easily hoodwinked. At last the time will come when the truth must be told, and it is there that the final masterstroke of the physician is shown in his suggestion of innocent means of acquiring syphilis by intermediate infection through towels, drinking glasses, *et id omne genus*. That this contention is not a ridiculous one may be easily demonstrated by means of the dicta of the best syphilographers, and it is more than likely that, if the case be properly put, everyone will be satisfied, and the physician will be asked to treat both husband and wife. Inquiry made of any competent physician will also lead to a confirmation of what has been said, and the only one deceived will be the husband; although the physician has really done a good action in averting a social scandal, and, in addition, giving a very salutary lesson to one of the interested parties in the case. It certainly is better to keep out such if it be possible; but cases will arise where such a course of procedure is perfectly impossible.

5. In the case of a married woman the matter is a much more delicate one to manage than with a man. To begin with, a woman is naturally of a susceptible nature, her nervous organization is more delicately constituted, and she is quick both to suppress and to resent. All these qualities make her most difficult to control, and render her alert to every trifle which others might not even observe. It is a well-known fact that married women as a class are more virtuous than married men. They resent unfaithfulness in their mates as much as the latter do when they are guilty of it. As a matter of fact, a woman feels as much sense of proprietorship in her husband as he does in her. It is on this account that if the woman be syphilitic the physician must temporize. For if the woman be virtuous—and it is on this basis that we found these remarks—and told the nature of her disease, she will accuse and upbraid her husband; these recriminations most probably terminating in a divorce court, with the necessarily accompanying scandal, and the man is apt to be innocent and have been

true to his wife. It is much better not to tell her immediately that she has syphilis, and see her husband in regard to any antenuptial disease which he may have possibly had. This is by all means the conduct to hold if the woman be beyond all doubt a virtuous one. With the husband to aid, the matter need not go any further, and any exposure to her of the true nature of the condition will not be necessary.

Having chosen these few conditions as representative of the various classes of patients who may present themselves to a physician, I will next proceed to give a few hints in connection with syphilis and deontology which may prove of some value in the perplexing problems which so often present themselves in connection with this subject. Whilst not wishing to dignify these with the appellation of aphorisms, they may be regarded, in some measure, as rules for action on the part of the medical practitioner, and as medical guides to keep him continually on the alert not to commit some regrettable error. This is more especially necessary for the younger physician, and has the effect of rendering him more conservative in the expression of his professional opinions.

The first rule to adopt is, not to pronounce any case syphilitic until the signs and symptoms which are presented make it a certainty. Like a woman, the physician who hesitates is lost. Either be certain, or, if a doubt exists, state so frankly and await developments which will prove either confirmatory or positively negative. It is not good practice and it is worse policy to show signs of hesitation without an adequate or satisfactory explanation therefor. A proper explanation will always be referred to a proper motive for making it. It no longer savors of hesitation, but is an undoubted evidence of a desire to protect the patient, and will make that patient suspect another physician, who is quick to formulate his diagnosis, of being guilty of ulterior motives.

It is not good practice to announce a positive diagnosis in all instances, a very injudicious course of procedure to follow. From what has already been said, it is readily seen that in many instances it would be very bad form, if nothing more. And it is a peculiarity of many persons to resent bad form, as they feel the implied accusation very keenly. There is none who is more susceptible in this regard than a woman, more

especially if she be one who is ordinarily denominated high-strung. A man of the same calibre will resent such and intrusion upon his matrimonial privacy; and, if great care be not observed by all concerned in the matter, serious complications of a social nature are very apt to arise, and ultimately lead to the wrecking of a home wherein nought but harmony prevailed theretofore.

It is not always the safest thing for a physician to tell the truth in regard to a syphilitic infection to a married man or woman until he has made himself perfectly acquainted with their marital relations. This is another delicate matter which requires the exercise of the greatest diplomacy, and yet one the truth of which is not so difficult to determine. The physician must necessarily be endowed with a certain amount of mental acuity, and he may be forced to adopt very round-about ways to enable him to arrive at what a very short, straight path would enable him to rapidly attain. The peculiarity of the circumstances which we present often necessitates such a course, distasteful as it may be. The great idea is to act in an apparently frank manner, and yet not to give cause for offense or jar upon the finer feelings or sensibilities of the patient. It is in such a circumstance that the physician manifests his innate skill and gains both the respect and liking of patients.

It must not be forgotten that there are many married people who very lightly and easily take umbrage at any remark which may be made. Thus, a mere word from the physician, perhaps lightly spoken in jest, may lead to very serious consequences and may even place his life in jeopardy, as has occurred in more than one instance. Such a serious termination of what should be a purely business transaction should certainly be avoided by all means. The bare possibility of such an issue should not only always be kept in mind, but its occurrence carefully considered as well. This can be best judged by obtaining a knowledge of the individuals whose cases are involved. In any event the entire matter is, at all times and under all circumstances, a very delicate one which requires much delicacy and circumspection on the part of the one who finds himself called upon to deal with it, and if a masterly retreat is possible it is the best course to adopt.

If another physician has been previously consulted and has pronounced the patient syphilitic, more than usual care must be exercised in making an examination. If this diagnosis be confirmed and found to be correct, there should be no hesitation in stating the fact. All the damage has already been done, so far as saving the patient's feelings may be concerned. A confirmation of the diagnosis will only go to prove that proper care, attention and treatment of the condition have become necessary.

In any case in which nothing has been definitely pronounced and where fears exist that the truth would not be opportune, manage the patient until the time seems opportune to make a definite announcement of the truth. In the meantime, the patient should be treated in order that some benefit may be obtained and made apparent to the patient. This will act with great force to demonstrate the nature of the disease in hand.

Do not use the term "blood poisoning" as a placebo. Everybody knows that this means syphilis in its commonly accepted meaning. Either tell your patient that the disease is syphilis, or, if you must hide your meaning, use the word "lues," which is little known and yet another name for pox. Above all, do not be brutal with your patient. Study the case, and the patient will readily furnish you with a good guide upon which to formulate your conduct.

There has been no desire to make this paper a complete one on the subject, but rather to furnish the brief outlines of a chapter in Syphilis and Deontology. It may prove interesting to some and if it is at all useful to the few in need of some such hints, the aim and purpose of the writer will have been fulfilled.

To Exhibit This Journal at St. Louis. — No World's Fair has had an exhibit of journalism. The Missouri World's Fair Commission plans, however, to make such an exhibit in the Missouri State building at St. Louis. As a part of it a bound volume of the JOURNAL for the year 1903 will be included. The exhibit will be arranged by the Missouri Commission through its Department of Publication, of which F. J. Moss of St. Joseph is chairman, and Walter Williams superintendent. This department will make a special exhibit of the history and literature as well as of the journalism of the State.

**ORBITAL CELLULITIS AS A SEQUEL OF SCARLATINA:
THE REPORT OF TWO CASES.***

BY BURTON CHANCE, M.D., OF PHILADELPHIA, PA.

Serous infiltration of the orbital tissues occurring in the course of or at the end of scarlatina is a rare affection. Notwithstanding the common references in the treatises as to the causal relations existing between the two diseases, a careful search through the literature has failed to reveal the details of a single case. I desire, therefore to record two instances of it that have come under my own observation and care.

In February, 1900, in consultation with Dr. William N. Welch, I saw a youth of about 17, who was in the midst of a protracted convalescence from scarlatina. In early life the patient had suffered from vertebral caries, and although the infectious fever had profoundly depressed his vitality there had been no serious complication until in his right orbit there suddenly developed with increasing severity a diffuse cellulitis. This unusual complication commenced with violent pains in the orbit and neighboring parts, It was accompanied by a chill, succeeded by marked elevation of temperature, and soon followed by an effusion of fluid into the areolar tissue with protusion of the globe.

The eyelids were red and excessively edematous. Digital examination showed great tenderness of the orbital tissues, which were hard and tense. For several days the protruding eyeball presented no inflammatory changes except a moderate degree of chemosis. The media remained clear and thus afforded ample opportunity for the study of the interior of the eye. At first there was transitory blanching of the fundus; this was followed by intense redness, and scattered throughout the fundus were fine hemorrhages. There was marked swelling of the disc, an overdistention of the veins and contraction of the arteries. The orbital pressure rapidly increased and obstructed the lymphatic and venous circulation. There was excessive edema of the conjunctiva and lids, followed by an intense livid redness, due to the distention of the vessels and hemorrhages from the conjunctival capillaries. A day or two before death the surface of the exposed cornea became dry and insensitive, and as its nutrition was interfered

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with necrosis speedily followed and the eye was lost. Until this took place no evidence of purulent effusion into the choroid and retina was apparent.

In spite of the use of external applications, the intensity of the swelling was not relieved until after repeated incisions had been made deep into the orbit, allowing the escape of a thick, sanious fluid. No purulent foci were found. The local and general symptoms failed to abate, although every effort was made to support the system by the administration of tonics and forced nourishment. The patient became septicemic, although the temperature curve was not hectic in character; a short period of delirium and coma was relieved by death a week after the onset of the local symptoms. The examination of the orbital structures after death revealed only a diffuse serous infiltration; there was no evidence of intraocular suppuration.

In February of the following year I was called to attend a boy of 10, who, like the patient just cited, was convalescing from scarlatina, and in whose right orbit there had developed an acute congestion with infiltration of the tissues, producing protosis between the intensely edematous lids. The localized symptoms were in general similar to those present in the first case. Throughout the course of the process the cornea remained unaffected; the media continued clear, and no evidence of intraocular exudation was at any time apparent, although the disc was swollen and intensely congested, as was the choroid.

The local alternate applications of hot and cold compresses and the administration of antiphlogistic remedies failed to reduce the swelling or to relieve the tissues from the effects of the pressure. Accordingly, wide and deep incisions were made into the periocular tissues. These allowed the escape of a quantity of blood-tinged serum. Suppuration had not taken place. The boy was of active disposition and robust physique. It had been thought wise to keep him quiet and in bed, because his heart's action had recently become somewhat irregular and weak, although it had not presented demonstrable evidences of endocarditis. An hour or so after my last visit, on the eighth day after the onset of the local affection, without premonitory symptoms, the patient was seized with a general convulsion, probably of cerebral origin, and died. Permission to make a post-mortem examination was refused.

The records of the daily routine have been mislaid. The onset of the localized symptoms was sudden, and there was a decided depression of the general constitutional vigor. The course in each case was rapid, death taking place within ten days after the appearance of the special symptoms. In neither case, after repeated careful examinations, was there disclosed evidence of any affection of the surrounding cavities or contiguous sinuses. The orbital borders were not diseased. The vision, however, was impaired and later altogether lost by the changes produced by the pressure on the optic nerve. The muscles were no longer capable of contracting, so that the globes could not be rotated, but remained displaced outwardly. The pressure upon the ciliary nerves blocked off the channels of reflex communication between the retina and the iris, so that the pupils remained dilated; and the iris failed to act in unison with its fellow when the eyes were exposed to bright light. The left eye and orbit in each case remained unaffected.

In the first case the short time allowed in which to examine the body and the limitation of the privileges granted made it quite impossible to study the subject with any degree of satisfaction. The refusal of the privilege to make a post-mortem examination in the second case was indeed most disappointing, for this child had only suffered from scarlatina, and therefore the condition of his body was apparently dependent upon the pathological changes occasioned by specific toxins.

In spite of my interest in the study of the cases, I can only theorize as to the possible causes for this additional malady. The individuals were apparently progressing favorably toward recovery, yet death occurred soon after the onset of the local disease. To what was death due? Was the orbital affection a part of a general process in a profoundly toxemic subject, or had there become concentrated in the orbital tissues poisonous matters of sufficient virulence to affect the economy with a fatal result?

In each instance there was satisfactory evidence that the orbital affection was not due to an extension of inflammation already existing in adjoining or communicating sinuses. My first supposition was that I should find suppuration in the orbit and thus assign the cause to the inflammation of these surrounding regions. No bacteriological examination of the

discharge was made, yet the matter was not apparently purulent.

It is not improbable that the morbid elements circulating in the blood of scarlatinal patients have properties which excite changes in that medium and tend to its decomposition; and, moreover the coats of the vessels may become so altered as to favor the formation of a thrombus. These changes doubtless take place more readily when the enfeebled heart is incapable of driving the blood current onward at the accustomed speed.

Thrombotic processes in other infectious diseases frequently present serous or suppurative infiltrations specifically localized in other portions of the body. When the present cases are compared with these others, the analogy is quite apparent, for here the effects of such a process were most manifest in the orbital region.

In conclusion, therefore, it is not unreasonable to advance the hypothesis that there had been so great a massing together of the morbid hemic elements as to produce a phlegmon of the orbit which need not necessarily have undergone degeneration or have given rise to suppuration. Consistent with this is the fact that the *materies morbi* of scarlatina is not essentially saprophytic in its action. In the case of the older boy, it is probable that the local affection had produced a fatal septicemia; while in that of the younger, death may have been due to the sudden passage of an embolus, detached from a heart-clot or from fragments of an unsuspected lymph deposit on one of the cardiac valves, which had become lodged in a vital area in the brain. Again, death may have followed the formation of a thrombus passing either from the ophthalmic vein to one of the communicating vascular sinuses or in the connections between the cervical veins.

When we consider the histories of these cases and note that in each individual the general strength became markedly affected upon the development of the special symptoms, and that in each instance death speedily ensued, there comes to us the thought of the possible good that might have been gained had the eyeball been enucleated. The orbit could thus have been persistently drained of the materials which were rapidly being absorbed by the lymphatics and which were apparently of such

virulence as to cause the death of the individuals. Assuredly it is our duty to establish the drainage of the orbit as early and as completely as possible by elaborate incisions into the periorcular tissues, because in these cases whatever relief there was we gained by that means; and it is at least fair to suppose that a more complete drainage might have evacuated the poison which apparently caused death.

MANAGEMENT OF MALIGNANT DISEASE OF THE UTERUS.*

BY GEORGE ERETY SHOEMAKER, M.D., OF PHILADELPHIA, PA.

Medical opinion is prone to move in waves which are either too high or too low. A note of unwarranted pessimism has been recently struck as to operative treatment of uterine carcinoma, especially epithelioma of the cervix. A few men have mourned that nearly all their cases operated on more than two years are dead. The inference that such cases are practically unbenefited by surgery is totally unjustified. Hysterectomy for carcinoma of the body of the uterus is well known to give many years of freedom from recurrence, if not permanent cure; but even epithelioma of the cervix, if taken reasonably early, will give operative results by no means discouraging. There is much to show that metastases and gland involvement are relatively late in this disease. Dr. Thaddeus A. Reamy, at the 1903 meeting of the American Gynecological Society, voiced this view and cited cases. To be sure, where one patient applies to the operating gynecologist in an eradicable stage, three patients come with bladder, rectum and broad ligaments involved by extension, but that is not the fault of the disease. It is partly the fault of the reticence of patients and partly the fault of physicians of all schools. The pitiful histories of the consulting room show that physicians to-day are treating with ergot and hydrastis, by the year, patients in middle life who show increased average bleeding, not in honest doubt over an obscure diagnosis made after reasonable effort, but totally without examination, to say nothing of fair study; though the changes in those particular cases may be gross, and only need a touch or

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glance to be recognized. Of course, not all bleeding cases are malignant; witness three private cases:

Z., aged 48 years, sent by Dr. J. B. H. Gittings. Hemorrhage, pallor. Examination, gangrenous intrauterine fibroma. Removal from cavity; cure.

Y., aged 70 years, sent by Dr. Longnecker. Soft bleeding mass. Examination showed a polypus long enough to chafe and bleed. Removal; cure.

X., aged 30 years, sent by Dr. John B. Roberts. Soft bleeding growth of cervix. Microscopical examination, benign papilloma. Excised, cauterized; cured.

It may be worth while to review the principles which may guide us in the management of suspected or proven malignant disease in its various stages.

Diagnosis.—The time has passed when the diagnosis of malignant disease should be expected to rest upon the fully developed series of classical symptoms formally described in text-books. After a patient has shown emaciation, cachexia, and suffers severe pain of a lancinating character, after the odor of decomposition becomes prominent, and hemorrhage severe and continuous, the tyro may make the diagnosis, and unfortunately, so far as the patient is concerned, there may be little difference whether it may be made or not. It is too late. The only hope of permanent cure is in the early diagnosis at a time when only one of these symptoms may be present, or when no one of them has become marked. The keynote of the whole subject is investigation with the aid of the microscope.

Examination.—If there is early carcinoma of the body of the uterus, absolutely nothing can be detected by the eye or hands, except possibly slight enlargement of the organ. The cervix will be normal; the uterus entirely movable; there will be no gland involvement. If there is excessive bleeding, curetting must be done and the material obtained, examined by a competent pathologist. This treatment is indicated whether the disease proves to be malignant or not. Should there be only hypertrophic glandular endometritis, which is a very common cause of hemorrhage in middle life, there is no treatment so likely to prove as quickly and permanently helpful as curetting, and no condition in which office treatment and medication is as useless. It is just at

this point that the ideas popularly prevalent among both patients and physicians have been responsible for the long array of hopeless cases dying of carcinoma when they come to the hands of the gynecological operator. The old idea that abnormal symptoms, such as excessive bleeding or discharge occurring in a woman after the age of thirty-five, may be due to an approaching menopause, has long since been exploded, but it is still responsible for thousands of deaths. Let the truth be appreciated and acted upon, that any average loss of blood continuing for several months, near the menopause or not, which is greater than the normal average of that individual, judged by her earlier life, is pathological and not physiological, and calls for rigid explanation and immediate correction. If this is done, half of the problem of the successful management of carcinoma will be solved. The physician who waits to add to the symptom of hemorrhage the odor of necrotic material, before making an investigation is oftentimes responsible for the patient's early death. She comes to him with the diagnosis ready-made by herself and friends—that it is the menopause; but the responsibility for better knowledge is his.

Prevention.—Much may be done toward the prevention of carcinoma by the repair of serious injuries to the uterine cervix and by the corrections of its gland degenerations. When these injuries are repaired, systematic examination of the removed tissue will occasionally discover an early malignancy, when a more radical operation can be performed. The repair of slight tears of the cervix, where no degeneration of the uterine surfaces exist, may be rightly termed meddling surgery, but, on the other hand, the obligation is strong to remove degenerating surfaces and cicatricial tissue when irritated. The curetting of hypertrophied gland tissue, which is causing hemorrhage, is also in the direct line of prevention of adenocarcinoma of the uterus, as the malignant disease is often engrafted upon a perfectly benign adenoma of the endometrium. The writer has had several patients who have had persistent bleeding for many years, evidently from benign forms of gland degeneration of the endometrium, where this has subsequently assumed the carcinomatous form. In the same microscopical slide may be seen benign adenoma and malignant adenoma side by side. Should curetting fail to cure in these apparently

benign cases, it should be repeated persistently as the beginning adenocarcinoma may occupy but a small portion of the endometrium. The first examination may, therefore, fail to disclose the more important disease simply from taking up the wrong piece of removed tissue.

Operable Cases.—All cases are suitable for hysterectomy and complete removal of broad ligaments, tubes and ovaries, as much cellular tissue as is possible about the uterine attachment, and a portion of the upper vagina when the disease is apparently confined to the parts mentioned. When the broad ligaments are evidently infiltrated out to the pelvic wall, thereby restricting the movements of the uterus, the prognosis is not so good as to return, but the operation should still be undertaken if the diseased tissue can all be removed. The actual cautery should be deeply and thoroughly applied to all accessible parts of the growth before a tenaculum is introduced or any other instrumental traumatism is produced. The vaginal attachments should be seared by the cautery, and as much of the other structures also as the proximity of bladder, ureters and rectum will admit. If the electric thermostat is used, additional cauterization with a fine point should be made of the vaginal attachments in front and behind, where the action of the thermostat is ordinarily wanting. In cases in which a large amount of carcinomatous tissue presents in the vagina, this should first be thoroughly removed, using the cautery as a knife, preferably several days before the hysterectomy. If this is thoroughly done, necrotic material is entirely removed, and it is possible to do the major operation through apparently healthy tissue, in this way greatly lessening the risk of dissemination of carcinomatous infection into fresh raw surfaces. The risk of infection appears to be real, however little we may know of its actual method of working. The importance of this preliminary use of the cautery is insisted upon, both because in the writer's experience those cases have shown the longest immunity from recurrence, under otherwise unfavorable circumstances, when this was carried out, and because the whole trend of surgical experience in combating carcinoma shows that the actual cautery is our most effective weapon against the disease. The best statistics of results of a reliable character, which have covered a sufficiently long period of years to be

conclusive, have been those of Dr. John Byrne of Brooklyn, N. Y., whose method of operating upon carcinoma of the cervix, which is confessedly the most difficult to cure, consisted wholly of the removal with the cautery and without a cutting instrument of the upper vagina and as much of the uterus as possible without opening the peritoneum. These statistics have been unimpeached, and far surpass in low immediate mortality and freedom from recurrence those obtained by other methods in which the cautery did not figure. That it is the cautery and not the extent of tissue removed which gives the improved results is shown by the fact that, in his system, less tissue is removed than in several methods of either abdominal or vaginal hysterectomy. Vaginal hysterectomy for cervical carcinoma has been practiced, and it was the comparatively unsatisfactory results from this method which led to the introduction of hysterectomy from above the pubes, and later to those extensive dissection operations which called for the removal of pelvic lymphatics behind the pelvic peritoneum and in the neighborhood of the iliac vessels. The poor results were due to the difficulty in removing a sufficiently large amount of surrounding tissue at the vaginal junction, and probably not to any less amount removed from inside of the pelvis. By a well-conducted vaginal operation quite as much of the broad ligament is removed by the necrosis which follows the clamp method as is usually removed by ligature from within the abdomen. Later experience with the extensive intrapelvic dissection operations has not demonstrated their value. The high primary mortality, the liability to postoperative complications and the failure to get improved results as to recurrence is rapidly placing them on the retired list, even in the hands of some early enthusiastic workers in that line. Some cases of epithelioma of the cervix, well marked and microscopically identified, have been entirely cured by removal of the cervix alone under cautery methods. This in itself shows that gland involvement is not always present, and, if present, may be late, and it gives encouragement for the continued use of surgical methods at the earliest possible moment, and later on whenever all of the disease is accessible. As to technique, I prefer to begin by the vagina, destroying all accessible tissue by the cautery as above described, ringing the upper vagina with the

cautery, and carrying out the earlier dissections from below, then opening the abdomen and separating uterine attachments, cautery methods being used whenever possible. Through the abdominal incision any accessible nodule of disease at or above the point at which the ureter passes the cervix may be more readily reached. For cases of adenocarcinoma of the endometrium, the so-called carcinoma of the body of the uterus, and in very early conditions of epithelioma of the cervix, in the opinion of the writer, the abdominal operation presents no advantages over the vaginal operation properly carried out, except that it gives an opportunity for inspection higher up and for dealing with bowel or bladder disease. In other words, a case so far advanced as to require extensive pelvic dissection for removal will get little benefit from any operation.

The limits of this paper will not permit a discussion of details of technique. The position is taken that each case must be managed according to its own peculiarities, but in general both in vaginal and the abdominal routes should be adopted, as has been stated. The experience in some of my own cases of vaginal hysterectomy, combined with cauterization has been so favorable that I do not share the pessimism which some operators express. In very early cases of carcinoma of the cervix, when the cautery can first be freely used, vaginal hysterectomy alone will give good results with an extremely small primary mortality, probably not over 2 per cent.

Six illustrative cases may be cited, all private patients well observed:

(1) Mrs. R. M. H., aged 54 years; 7 children, 3 miscarriages; epithelioma of the cervix. Operation, April 4, 1896. —(*Therapeutic Gazette*, Oct., 1896.) Examined and found entirely well May, 1903, 7 years later. The epithelioma, which was microscopically demonstrated in the laboratory of the Methodist Hospital, was around the external os uteri, the farthest infiltration extending on the left side about $\frac{1}{2}$ inch into the lower lip. There were three little warty projections just at the edge of the os. The vaginal portion of the cervix was not diseased, except at these points. Thorough preliminary cauterization of the diseased area with the Pacquelin instrument, followed by vaginal hysterectomy, ligation method. Though

the patient had a decided mitral murmur, the pulse at the end of operation was 86, and recovery was uneventful. There have been no signs of recurrence of the epithelioma. The patient is in good circumstances and is now living in Philadelphia.

(2) Mrs. E., aged 39 years; one child. Referred by Dr. W. R. Hoch. Malignant adenoma of cervix uteri and of posterior vaginal wall at the point with which the diseased cervix laid in contact. Operation, thorough use of thermocautery, followed by vaginal hysterectomy and excision of the diseased vaginal wall. Microscopical diagnosis Drs. D. L. Edsall and Cattell. An area of disease involved both cervical lips for a diameter of 2 cm. about the external os. Operation, Feb. 13, 1897.—(*Med. and Surg. Reporter*, April, 1897, case 29). A slight local recurrence in the vaginal wall was cauterized 9 months later with the Paquelin without perforating the rectal wall. Since, the patient has remained in perfect health, now more than 6 years and was seen and examined recently. She weighs 160 pounds and performs the duties of a postmistress in a small city.

(3) Mrs. S. J. S., widow of a physician, aged 50 years; 6 births. Sent by Dr. R. J. Phillips. Microscopical diagnosis by Dr. D. L. Edsall, squamous epithelioma of cervix uteri. Vagina involved all around cervix, broad ligaments slightly. Operation, April 7, 1898. Cautery to vaginal attachments followed by vaginal hysterectomy. Examined Feb. 13, 1903; entirely free from recurrence; 5 years.

(4) X., aged 45 years, single. Microscopical diagnosis, malignant adenoma of the cervix. Operation, cautery and vaginal hysterectomy, Oct. 5, 1898. Frequently examined since. Now well, $4\frac{1}{2}$ years; free from recurrence and working as a trained nurse.

(5) Mrs. S., aged 71 years; microscopical diagnosis, carcinoma of body of uterus. Operation, Dec. 5, 1899. Vaginal hysterectomy. Two months ago reported to be free from signs of recurrence; over 4 years. The patient lives out of the city, but is constantly watched by a physician.

(6) Mrs. B., aged 66 years. Sent by Dr. M. K. Elmer, of Bridgeton. Persistent bleeding. Microscopical diagnosis, small carcinoma of cervix, pathological laboratory Presbyterian Hospital. Combined vaginal and abdominal hysterectomy. June 17, 1901, well. I removed a papillomatous cystoma of the left ovary in September, 1898.

Another class of cases may be cited as illustrating the prolongation of life in epithelioma of the cervix of apparently hopeless character. Over four years ago Dr. William G. Porter, of this city, referred to me the wife of a friend who had been under the care of physicians for severe hemorrhage due to epithelioma of the cervix. The patient was in bed, extremely weak from long-continued hemorrhage, suffering much pain, and had been advised against operation by her previous attendants. A large, soft, friable mass of carcinomatous tissue, more than three inches in diameter, tightly filled the upper vagina, making it impossible to outline the cervix uteri from which the growth took its origin. Profuse hemorrhage followed examination, and though it was impossible to determine the exact limits of the disease the case was considered an unfavorable one for operation, both on account of heart weakness and the probability of speedy recurrence. With the object of arresting hemorrhage and giving temporary relief, in January 1899, with the assistance of Dr. Porter, I rapidly removed the fungating mass which sprang from the cervix, and thoroughly and deeply cauterized the uterine tissue up to the limit of safety of neighboring organs. When the parts had partly healed and contraction had occurred, the uterus was found to be so movable and so little infiltration of the perimetrial tissues was present that hysterectomy, at first seemingly impossible, was determined upon. Owing to my illness it was carried out, at my request, by another surgeon, who used the vaginal method. I met the patient on the street a few days ago, looking entirely too stout for comfort, and except for neurotic symptoms, in very fair health. She has had various ups and downs in the past four years, and at one time had an abscess to the right of the uterus which was supposed to be appendiceal, but though no recurrence of the carcinomatous growth has, I am told, been demonstrated to date, the probabilities are that she has it. The patient passed from under my care. That a patient apparently dying of carcinoma of the cervix should be fat and healthy looking more than four years later is in itself a vindication of the operative treatment of an apparently hopeless case. In my judgment, the crucial element in the management of this case was the thorough use of the Paquelin cautery about two weeks before the hysterectomy.

Unfortunately, cases as advanced as this usually die rapidly from hemorrhage or exhaustion in a few months, no matter what treatment is adopted, but the case illustrates the point previously made that in certain patients, even with extensive disease of the uterine cervix, metastasis to neighboring glands has not occurred, and a radical local treatment will produce marvelous results. The cases in which these good results will follow cannot be determined beforehand, but they occur with sufficient frequency to encourage us in radical operation when all visible diseased tissue can be removed. It is an axiom in surgery to which I know no exception that attempted radical operation confined within the limits of carcinomatous growth is harmful rather than useful to the patient. This does not apply, however, to removal by the cautery of soft, fungating, bleeding, sloughing masses from the cervix. This gives great, though temporary relief from pain, hemorrhage and sepsis, and as it is not accompanied by danger or shock may be repeated more than once during the downward progress of the disease. No lymph spaces are thus opened which are not at the same time sealed by the cautery.

There remains for consideration the management of the later stages of recurrent or inoperable growths. The use of the X-rays as a palliative in the pelvis appears at the present time considerably limited by the deep-seated location of the diseased parts. It may be tried, however, through various vaginal speculæ and in some cases appears to give relief, at least temporary. A case of fibrosarcoma of the abdominal wall operated upon for Dr. M. B. Hartzell, six months ago had an involvement of the uterus, the left broad ligament, the left tube, ovary and rectum. The disease could not be surgically removed and the abdomen was closed. Under the X-ray treatment by Dr. Newcomer, at the Presbyterian Hospital, the patient has shown marked improvement in relief of pelvic distress and in diminution of the superficial portions of the growth.

In late cases, in which sloughing is going on, nothing has given greater satisfaction for daily use in the hands of the patient than strong solutions of potassium permanganate. The surgeon may apply at intervals of several days strong solutions of formaldehyde, one to ten, for example, with a decided influence in lessening the progress of superficial growths.

This has served to delay a recurrent carcinoma of the uterus for more than two years in a patient for whom I performed hysterectomy more than six years ago. She is now free from hemorrhage, has no odor, and suffers little pain, though the disease has slowly but steadily invaded the scar tissue between the bladder and the rectum and the upper portions of the vagina.

In conclusion, a strong plea is made for the early investigation of cases which show any of the symptoms of malignant disease. The method of operating is to be determined by the case, but every patient should receive in some form thorough treatment by the actual cautery before any lymph spaces are opened by any other form of operation. Even apparently hopeless cases may show surprisingly satisfactory results. No case should be denied the benefit of persistent, intelligent palliation.

Starvation as a Therapeutic Agent.—Charles Douglas says that the selection of patients requiring starvation for a time, opens up a very wide field, inasmuch as we find them of all ages and the sickness of a wide range in character. When we consider the anorexia usually produced in all febrile diseases, and also the direct range of its intensity with the height of the fever, we see at once how nature follows a common law of lessened necessity for food in all acute febrile disturbances. We should also remember nature's law in those with unhealthy or over-worked digestive organs when suffering from acute febrile disturbances. Especially in this latter class it is necessary to apply this starvation regimen, as these patients very commonly suffer from an increased craving for food, rather than the anorexia which should accompany the condition. In other words, the physician should always apply this regimen when he knows that the clinical condition of the patient prevents perfect digestion of the food, and, consequently, if allowed it will add another source of high temperature, and consequently a mixed infection of toxemia will be the result, with the difficulties of diagnosis and treatment materially increased. The author reports a number of cases illustrating the success of the starvation treatment in nephritis, gastro-enteritis, pneumonia and scarlet fever.—*Detroit Medical Journal*, March, 1903.

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EDITORIAL.

ARE THERE TOO MANY PHYSICIANS?

There seems to exist a general complaint at present and it appears to be reflected in medical journals to an extent which shows that the matter is almost universal and one upon which there is a certain unanimity of opinion. We allude to the plaintive howl raised by a number of physicians concerning the overcrowding of the profession and the large number of physicians who are practicing medicine or attempting to do so. This wail naturally leads us to inquire whether there are, in reality, too many physicians. Of course, this leads to a critical inquiry into the terms which enter in the proposition, and the first one is as to what constitutes a physician. Any one who calls himself such or who can dignify his name with the affix "M.D." is not necessarily, on that account, a physician.

There seems to unfortunately exist an idea that the mere fact of graduating at a medical college makes a physician; when, as a matter of fact, it merely qualifies the individual to begin studying in a rational manner. The title conveyed by the degree, in too many cases, reminds us of the old cynic's aphorism,

doctor sed non doctus. The recent graduate who assumes learned looks and indulges in technical phrases is soon uncovered and the veriest tyro soon discovers his deficiencies. He is soon relegated to the great band of physicians who have no practice, and it is this very fact which has led to the mistaken idea that there are too many physicians. Again, there are those who are employed to do what might be termed semi-medical or purely office work, and these certainly cannot be looked upon in the light of physicians.

Another cause of complaint arises from the older members of the profession who are unreasonable in their querulous observations. They forget that they have not kept abreast of the progress made in the medical and surgical sciences and that they have remained in the same old rut, depending upon their imperfect methods of examinations and upon therapeutics which long ago were abandoned on account of their inefficiency. The younger generation has been trained to exact methods, in scientific diagnosis and modern rational methods of treatment. These causes have naturally contributed to a marked lessening of the practice and diminution in numbers of the patients of the older physicians, who but too often are derisively called "moss-backs." For them, there are too many physicians. They have felt the on-coming of a more competent generation of medical practitioners—*Hinc ille lachrymæ!*

We hardly think that there are too many physicians—we know that there cannot be too many good ones. In this matter as in all others the law of evolution will hold. The weakest will go to the wall and the better and therefore stronger portion will fittingly exemplify the law of the survival of the fittest.

Sodomy.—The Court of Criminal Appeals of Texas holds, in *Almendaris vs. State*, that under a charge of sodomy, carnal knowledge, such as is essential to the crime of rape, must be proved, though the jury may infer penetration from the circumstances, without direct proof. And the Court of Appeals of Kentucky holds, in *White vs. Commonwealth*, that, while the decisions have not been uniform, the drift of the later decisions in both the English and American courts is to hold that nothing more than *res in re*, without regard to the extent of the penetration or emission, is all that is required.—*J. A. M. A.*

SOCIETY PROCEEDINGS.

CLINICAL SOCIETY OF THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL.

Meeting held March 2, 1903.

The President, DR. ALEXANDER LYLE, in the Chair.

RECURRENT SARCOMA CURED BY X-RAYS.

Dr. F. M. Jeffries presented a canary bird with an interesting history of recurrent sarcoma cured by X-rays. The bird was brought to him about seventeen months ago suffering from a small tumor in front of the right eye, and he was asked to make a diagnosis. The growth was removed under anesthesia and section made in the usual way. The tumor was found to be a spindle-celled sarcoma of the small celled type. The removal of the growth opened the nares and a large part of the nasal cavity. Seven months later it was noticed that recurrence was beginning, and the growth rapidly increased, involving more territory. The bird was first exposed to the rays for a very short time—one, two or three minutes—which was gradually increased to five and finally to ten minutes at each treatment. A medium tube without a shield was used. The growth quickly diminished in size, and the inflammation about it subsided. The treatment lasted five months, when it ceased, and up to the present time there have been no signs of recurrence. Considerable cicatricial tissue is now apparent at the site of the neoplasm. The bird has a cataract of the right eye, and it is not known whether this existed previous to the beginning of the X-ray treatment. The theory is that its formation is independent of the X-rays.

Dr. J. A. Robertson said that he had employed the X-rays for the past five or six years, and during the past few months had had an extended experience in the treatment of epithelioma and carcinoma. He emphasized the fact that if tubes of sufficient penetrating strength are used, a cure will usually result. This fact had been demonstrated in the case of the bird, in which medium strength was used, without a shield. Well-known authorities claim that neither sarcoma nor carcinoma should be treated with a shield. As to the cataract, the

speaker thought it was probably the result of X-ray treatment, as, when he used the fluoroscope, conjunctivitis developed in both eyes, and cataract might reasonably be supposed to result from this source of irritation, if sufficiently long continued.

Dr. W. H. Luckett said that he thought it rather too soon to state positively that the growth had been "cured." He had seen many instances of so-called X-ray cures of sarcoma, carcinoma, etc., but the growths usually recurred. One such case was that of a woman who suffered from sarcoma of the scalp about the size of a goose-egg. She was treated with X-rays for about three months, and the growth was reduced to about one-fourth its original size, and a month or so later it entirely disappeared. He did not see the patient for two months, when she presented herself at the dispensary with the tumor as large as it was when first seen, and it was suppurating. Cachexia soon followed and death supervened. In his opinion, it is wrong to work without a shield. Dermatitis often results from the use of the X-ray, and the radiographist must stop work for months at a time and not even go near the machine. The speaker also mentioned a case of epithelioma of the cavity of the mouth. The diagnosis was made from a section, and a Ferguson speculum was introduced into the mouth, and the patient was treated in this manner for four months by the radiographist to the hospital; but, despite the fact that he received very careful attention, the patient is dead.

Dr. Jeffries closed the discussion by saying that in regard to the selective power of the X-ray, the present case was an instance in which the entire body was exposed, as it was impossible to concentrate the rays; and, except one instance in which the bird's feathers were burned from over-exposure, there were no ill effects.

PARAFFIN PROCESSES FOR SADDLE-BACK NOSE.

Dr. W. H. Luckett presented two photographs of a patient who had been treated with paraffin prosthesis for saddle-back nose. One was taken previous to the treatment and the other after the injection. The latter showed great improvement in the patient's condition. He prepares his own paraffin, using the ordinary paraffin of commerce, and reduces the melting point by mixing with the liquid petroleum of Schaeffelin,

which gives a clear white solution. He considers the fluid injection method of using paraffin the best. He employs the ordinary aspirating syringe of Tiemann for the injection. The paraffin, at a melting point of 105° F., is drawn into the barrel of the syringe, and the syringe placed in a 2 per cent solution of carbolic acid heated to 120° F. This is done to keep the paraffin from solidifying. The subcutaneous tissues will stand 120° of heat without injury. This maneuver prevents the needle from becoming plugged up, and avoids the formation of a solid column of paraffin. The needle is inserted and the paraffin injected rapidly. The injection in this case was made by inserting the needle under the tip of the nose and carrying it up to the brow. There are three points which it is necessary to compress in order to keep the paraffin in position, and this was accomplished by having his assistants place their fingers at these points. The speaker saw one case in which 15 or 20 minims of paraffin had to be removed. There has been a great deal of talk about paraffin being replaced by connective tissue in these cases. A correct explanation of the histologic arrangement of the elastic tissue fibres show that they run in every direction, crossing each other, and enclosing between them spaces filled with fluid, these spaces connecting one with another. Several cases have been reported in which, on the removal of a section in which paraffin has been injected, the connective tissue seemed to be growing through the paraffin and thus displacing it. The speaker had injected liquified paraffin into the nose of a cadaver, and had taken out a section immediately and submitted it to Dr. Jeffries for microscopic examination. The latter found that the paraffin ran around the fibres and blood-vessels, encircling the latter in the spaces of the fibres. He had then taken a syringe with a screw-piston action (Harmon-Smith syringe), filled it with paraffin in a melting condition at a high melting point, and forced from the end of the needle a solidified thread of the paraffin. This did not run all round the fibres, and the paraffin was taken out in a solid piece. This is satisfactory proof that liquified paraffin is best for injection.

Dr. F. M. Jeffries said that when Dr. Luckett had brought him the specimen referred to for examination he had to resort to methods not usually employed in histological work. In order

to obtain a section of the tissues by the paraffin method, and to displace all the water, it is necessary to replace the latter by materials that will dissolve the paraffin, and then to gradually introduce the paraffin into this substance. This was impossible in the present instance; but, after a series of experiments, it occurred to him to use the specimen just as though it had been through all this preparation. He heated some paraffin and imbedded the specimen in it at a temperature just sufficient to melt the outer layer and not that contained in the tissues. Then sections were cut. Ordinarily the specimens obtained by the paraffin process are fastened to slides, the paraffin is removed, and the tissues are stained and mounted on a slide. When the section adheres to the slide and the paraffin has been removed, the tissues remain just as injected in every relation, part to part. The paraffin was absorbed, and everywhere that spaces were left, there paraffin had been, demonstrating just what Dr. Lockett had stated above.

Dr. Francis J. Quinlan presented an apparatus which he had devised for the subcutaneous injection of paraffin into the nose. He uses an ordinary antitoxin syringe—one that could be cleansed and sterilized easily—and a needle of very large calibre. When commencing his work he used the ordinary commercial paraffin, but now adds to this 10 to 15 per cent vaselin. He has found that even if the temperature is high, the paraffin will cool and become coagulated in the needle of the syringe. To overcome this difficulty, he devised a jacket or hood of metal that keeps the paraffin at an even temperature. He attaches a rubber tube to a receptacle filled with water at a temperature of 120° F., and keeps up a constant flow through the jacket, keeping the contents of the barrel of the syringe at an even temperature, and injecting it into the tissues up in the nose when needed. Of 94 injections of paraffin by this method, he had had a few unfortunate accidents, but many excellent cosmetic results. He said that in introducing foreign substances, such as heretofore used, to act as supports in the cavity as a result from loss of bone, tissue, or from congenital deformities, there is always great danger of infection and supuration. He knew of only one device which at the present day, its author claimed, resisted all infection, and that was a celluloid plate introduced to the profession by Dr. Dawbarn.

The speaker said that Dr. Luckett had referred to the fact that his assistants place their fingers in position to prevent the paraffin from spreading where he does not want it to go. He had added to his armamentarium during the past year a silver ring covered with ordinary rubber tube. Instead of having his assistants place their hands over the field of operation to prevent the paraffin from running around up to the bridge, he simply slips this ring over the site of operation and then injects the paraffin into the tissues.

Dr. Luckett said that Dr. Quinlan had not dwelt on the reasons for his bad results. He thought that they might have been due to the fact that paraffin was at too high a temperature when injected, as this will cause the tissue to slough. A pressure-narcosis will not occur unless the paraffin is injected into the periosteum, or unless the syringe of Smith is used.

Dr. J. H. Burtenshaw presented a report of a case of
GENERAL PUERPERAL SEPTICEMIA TREATED BY INTRA-ABDOMINAL IRRIGATION WITH NORMAL SALINE SOLUTION;
RECOVERY.

The patient was a Frenchwoman, twenty-four years of age, who became pregnant in August 1902. On December 9th, she produced abortion by inserting an ordinary penholder into the cavity of the womb. The endometrium was badly wounded by the instrument and considerable hemorrhage followed the introduction of the instrument. He was called to see her at midnight, December 16th. Her temperature was 104.4 F., her pulse rate 120, and her respiration rapid and shallow. Peritonitis had developed. She had urinated but once during the previous twenty-four hours. Urinary analysis showed a specific gravity of 1031 and the presence of much albumin. Blood examination revealed innumerable streptococci and uterine scrapings developed streptococci and staphylococci.

The uterus was gently curetted and a suppository containing one dram of iodoform, fifteen grains of starch and glycerine, was inserted into the cavity. Enteroclysis was attempted, but was not persisted in as it caused the patient such marked pain. Eight ounces of blood was extracted from the median basilic vein, and eleven ounces of normal saline solution introduced. Improvement was pronounced.

The following morning her temperature and pulse-rate were as before and coma was developing. Subcutaneous infusion was practised, but absorption was very slow. It then occurred to the speaker that thorough irrigation of the entire abdominal cavity with normal saline solution might accomplish three things: first remove the collection of serum which undoubtedly already was effected by streptococci; second, through absorption of the most extensive lymphatic system of the body, the kidneys would be more quickly and radically influenced; and third, peritonitic adhesions would be prevented. Several gallons of a normal saline solution, prepared according to the formula of Locke containing sodium chloride 119 gr.; calcium chloride gr. 3 3-4; and potassium chloride, gr. iss to the quart, was made ready and kept at a temperature approximating 110° F. A four quart fountain-syringe and tube were sterilized by boiling. A two-inch median incision was then made in the abdomen midway between the umbilicus and pubes, and the tube of the syringe introduced as far as possible into the pelvis. For one hour the solution was allowed to flow into the cavity without intermission. The patient was frequently turned on her side and pressure made on her flanks to facilitate the exit of the fluid. At the end of the hour her temperature had dropped to 102.6° F., and her pulse-rate to 110. Forty ounces of urine had been drawn from the bladder, the last being of a specific gravity of 1013.

At ten o'clock at night the irrigation was repeated for half an hour, the following day from ten o'clock until midnight, the irrigation was continued at three hour intervals. The abdominal incision was closed on December 19th. Her temperature then was 100°.4 F., and her pulse-rate 100. From ten o'clock on the night of the 17th to noon of the 19th, 210 ounces of urine was collected by catheter. Recovery was uneventful. On February 1st the speaker examined her at his office and found the uterus to be in good condition and freely moveable, but enlarged and somewhat sensitive. Both ovarian regions were sensitive, and the left ovary was enlarged. He could discover no evidence of pus foci in the broad ligaments or elsewhere. There appeared to be an entire absence of peritoneal adhesions.

Dr. Luckett opened the discussion which followed the reading of Dr. Burtenshaw's paper. He said he thought the treat-

ment adopted might be successful in a small proportion of cases. It had been tried and had failed. He knew of cases in which two incisions had been made in the abdomen through which the cavity had been irrigated, with very unsatisfactory results, the cases resulting fatally.

Dr. Burtenshaw said that he had not reported the case with any idea that the method would be adopted as a routine practice in puerperal infection. As far as he knew, it is the first case to be put on record in which the patient had recovered from such profound streptococci infection by the employment of such a method of treatment.

He was familiar with one or two detailed cases referred to by the previous speaker, but his own case possessed distinctive features. The kidneys had ceased to functionate and death would probably have resulted in a few hours had the urinary flow not been reestablished as it was. The character of the solution and the length of time which it was allowed to flow into the abdominal cavity were factors which also differentiated the case from those referred to by Dr. Luckett. The entire absence of peritoneal adhesions and of the other ordinary sequels of septic peritonitis could only be attributed to the treatment adopted.

EXTRAUTERINE PREGNANCY.

Dr. L. J. Ladinski presented this specimen. Rupture had been attended by profound hemorrhage and shock. He thought all gynecologists were of the same opinion regarding the treatment of this condition, but differed as to the proper time to operate. In his opinion, no matter how profound the shock, the patient should be operated on immediately, even with unsterilized instruments if necessary. The history of his case was as follows: Patient 30 years old; married 9 years; 3 children and 2 miscarriages; last child 7 years ago; last miscarriage 1 year ago. Menstruated regularly until two months previous to admission to hospital, December 30, 1901. Five weeks after regular menstruation she was seized with colicky pains in pelvis; was examined by physician, who suspected uterine pregnancy. Immediately after examination patient fainted, remaining in this condition until brought to hospital. She was unconscious, extremely anemic, and on placing her

on table and exposing abdomen, the latter was seen to swell. Her clothing was ripped up in front, an assistant introduced a saline infusion into her vein, the offending tube was removed and the abdomen closed with three sutures. She made an absolute recovery in three weeks and was discharged from the hospital. After operation she remained in the same condition as when put on the table for four or five hours, when her pulse and temperature became normal. The speaker expressed the opinion that the more a patient is stimulated while suffering from hemorrhage, the greater the bleeding in the abdominal cavity, and the object in operating is to stop the bleeding as quickly as possible. After the tube has been removed, one is sure that whatever improvement takes place will be permanent, whereas, if stimulants are used, and the hemorrhage stops of itself, it is likely to recur, and the patient may succumb to the shock.

Dr. C. G. Child said he thought the hesitation about operating in these cases arose from a doubt as to positive diagnosis; and, until the profession is able to diagnose these conditions earlier, there will always be procrastination in operating. One simple way to make a diagnosis is by vaginal section, either anterior or posterior, and if free blood is found in the abdomen, the diagnosis is confirmed. When a physician who is always working on these cases makes a diagnosis he is perfectly sure of his operative treatment, but the general practitioner had better substantiate the diagnosis through the vagina.

Dr. B. Torrens said that he thought immediate operative treatment justified in these cases. He had seen cases of ruptured tubal pregnancy treated for six weeks through the cul-de-sac, and operation had to be resorted to in the end.

Meeting held April 6, 1903.

The President, DR. ALEXANDER LYLE, in the Chair.

PARALYSIS OF THE LEFT VOCAL CORD.

Dr. D. S. Dougherty presented a case of paralysis of the left vocal cord, with partial paralysis of the right vocal cord. The entire larynx of the patient was congested and infiltrated, and there seemed to be no lifting of the arytenoid cartilages on the laryngeal plane. The speaker said that the patient had been

operated on last November for the removal of a thyroid enlargement, and that immediately after the operation he lost his voice. It was noticed after the operation that the larynx was pushed to the left side. He returned to the hospital, and an operation was performed on the opposite side on Feb. 10. Twelve days later he was seized with spasms of the anterior muscles of the forearm and calves of the legs, accompanied by intense pain and hyperesthesia, and on March 26 had an epileptic form of convulsion. This was the only convulsion he had had. At the present time the patient was able only to make imperfect sounds, but once or twice his voice had been quite distinct. The speaker thought that the condition was due to severance of the recurrent laryngeal nerve, near the trachea, and slightly in front and to the left of the right vocal cord. The surgeon who had performed the operation thought the condition was probably due to a tetanoid infection.

Dr. W. H. Lockett, in opening the discussion, said that when the thyroid gland had been removed, this condition is a common sequel and is not due to infection with the tetanus bacillus.

Dr. J. A. Bodine asked whether the patient had been operated on under general anesthesia, and was informed that ether had been used. He said that it is wrong to employ general anesthesia for operations on a goitre, as a weak solution of cocaine can be used and the surgeon can see what he is doing, and thus avoid severing the nerve.

Dr. W. B. Pritchard asked if the doctor positively excluded post-operative hysteria. He thought that, as the man had regained the use of his voice once or twice, the sensory disturbances, together with the tetanic condition, suggested post-operative hysteria. He thought that if organic paralysis existed his lack of phonetic powers would be lessened.

Dr. Dougherty said that he did not think that the recurrent laryngeal nerve had been severed entirely, because it would be impossible for the patient to recover his vocal powers as much as he had. He said that the post-operative hysterical element had been eliminated, because the paralysis was unilateral. In post-operative hysteria, the paralysis is always bilateral, and the cords remain entirely without motion. In the case under discussion the right cord would abduct, but the left cord remained without motion except from the motion in the entire larynx.

Dr. Pritchard said that hysteria co-exists with unilateral paralysis in other parts of the body, and he did not see why it could not be possible in the larynx.

Dr. Dougherty closed the discussion by saying that Dr. F. J. Quinlan had examined the patient and had found nothing to indicate hysteria.

GUMMATOUS TUMOR OF THE LEG TREATED BY INTRAMUSCULAR INJECTIONS OF SALICYLATE OF MERCURY.

Dr. D. A. Sinclair showed a patient suffering from a gummatous tumor of the leg about the size of a silver dollar, situated in the lower third of the tibia. The history of the case was as follows: Widow, 39 years old. No previous history of syphilis could be elicited. Tubercular history negative. Fifteen months ago the patient noticed a swelling of the right leg over the lower third of the tibia. This was treated by poulticing and it broke. Later, she was anesthetized by ether on two occasions and the swelling opened and the bone scraped. At the end of fifteen months the patient was worse than at any time since the growth made its appearance. She complained of severe pain and exquisite tenderness and of nocturnal pain and insomnia. In spite of the fact that no history of syphilis had been obtained, to the speaker the swelling was characteristic of gumma. On March 24 the patient received an intramuscular injection of salicylate of mercury, and a second injection of the same amount was given on April 3. The tumor rapidly diminished, and at the present time is level with the skin. The discharge is very slight, and pain and tenderness have entirely disappeared.

Dr. A. R. Robinson opened the discussion of this case by asking what Dr. Sinclair's experience had been with the mercurial injection alone in pure gummatous infection. The speaker thought that traumatisms might correspond with the case before the Society. There are many instances of lesions known as syphilitic in which the patient had been afflicted with syphilis some twenty years before and internal treatment with mercury alone had cured them when other measures had failed. He wanted to know whether Dr. Sinclair regarded the lesion as purely gummatous or as an inflammatory process resulting from the person having had syphilis. He said that iodide of potassium is necessary in all cases in which there is a pure gummatous lesion.

Dr. Luckett said that he thought it is impossible to treat these patients with mercury alone, just as it is impossible to treat tuberculosis satisfactorily with creasote only. He thought the open air treatment, stimulation and proper nutrition are what these patients require. He thought this patient would be greatly benefitted by prolonged hot baths, producing a slight diminution of hyperemia, just enough to somewhat retard the venous supply.

Dr. Sinclair closed the discussion by saying that he regarded the case as a pure gummatous lesion.

These specimens were shown by Dr. Luckett: (1) The septic uterus contained multiple abscesses. (2) An acute stricture of the intestine was interesting because of its history. The patient, a female, aged 26 years, had suffered from chronic constipation, but otherwise had never been ill. Twenty-six hours before her death she had been seized with acute vomiting, spasms, and all the symptoms of acute intestinal obstruction. She was removed to the hospital, but her condition was moribund, and an operation was deemed impossible. She died four hours later. At the autopsy the small intestine was removed five inches from the ileo-cecal valve and appeared carcinomatous to the naked eye. Specimens similar to this one have been sent to a pathologist and have been diagnosed as epithelioma, but two pathologists have pronounced this specimen to be simply an acute inflammatory growth, with no signs of a neoplasm or of chronic inflammation. (3) A specimen of an appendix was presented to illustrate the almost facultative power of the omentum to carry itself from one part of the abdominal cavity to another for whatever use it is intended. If an incision is made into the abdominal cavity, even if not at the lowest end of the omentum, the border will crawl upward and try to fill the opening. This appendix was rather short, and was almost on the point of perforation. It had been grasped by the omentum, and there was absolutely no adhesion to either the intestine or to the parietal peritoneum.

The paper of the evening, by Drs. Ross and Packard, entitled

THE TRANSMISSIBILITY OF TUBERCULOSIS,
was read by the latter. He said, in part:

Statistics show that one-seventh of the deaths during a given year are due to tuberculosis. It is conservatively estimated that 150,000 persons die from some form of the disease in the United States annually. While certain questions involving the etiology of the disease have been settled, there is still great uncertainty as to its hereditary transmissibility. Many authorities claim that it is non-transmissible, but that predisposition is always present in a child born of tuberculous parents. Statistics and animal experience to the contrary, it can be proved conclusively that hereditary transmissibility is not only a possibility, but a reality. Cohnheim was the first to suggest the possibility of direct transmission to the embryo. In substantiation of his theory, the following case was referred to: A tuberculous mother, 23 years of age, died in the seventh month of her first pregnancy. Directly after death the fetus was extracted by Cesarean section. Examination of the blood from the umbilical vein, as well as of the liver, spleen and kidneys of the child, demonstrated positively the presence of tubercular deposits and of tubercle bacilli.

Lehman's case was that of tuberculosis of the placenta of a 26-year-old mother, who died of general tuberculosis. Sections of the chorion showed typical miliary tubercles, and microscopical examination disclosed the presence of the bacilli. Many other cases are on record. In the experimental work of Bar and Renon, they have been able to infect guinea-pigs with tuberculosis with blood taken from the umbilical vein of a fetus whose mother had been phthisical. Monti, in his lectures, was wont to say that a fetus is always prone to tuberculous infection; but that if the placenta is healthy, it usually, but with many exceptions, acts as a filter to the micro-organisms and the child escapes.

Distinguished authorities at the present time assert that direct transmission through the sperm is a very remote possibility. Among these is Virchow, who claims that germinative infection is impossible, as the presence of the bacillus must necessarily interfere with the development of the ovum. On the other hand, in Monti's work on spermatic infection, he found that the semen of tuberculous patients, when injected into the peritoneal cavity of guinea pigs, produced a general tuberculosis. Baumgarten and Spano have demonstrated that

the seminiferous fluid of tubercular subjects whose genital organs were entirely free from pathological lesions contained numberless tubercle bacilli.

The time will come when the teaching regarding the transmissibility of tuberculosis will undergo a radical change, and authorities will then point out to the public the danger as well as the criminality of marriage between tuberculous individuals.

Dr. F. J. Quinlan opened the discussion which followed the reading of the paper. He said he thought the ideas set forth were reasonable and possible. The soil is bad in tuberculous patients, and certainly the fruit that it puts forth is apt to have tissues below the normal resistance. Many offsprings from tuberculous patients are seen in the clinics, and their lymphatics are prone to disease germs, and show evidences of the ravages of disease to such an extent as to almost compel a belief in the heredity of tuberculosis. He thought that if syphilis could spring forth anew and bear new seed in the offspring of parents who had acquired this disease, he did not see why tuberculosis should not act likewise. A great deal might be done to restore these children to health by clear oxygenation.

Dr. E. L. Keyes, Jr., said that his belief concerning the heredity of tuberculosis had been directly contrary to that expressed in the paper, but the cases quoted were so strongly confirmatory of direct transmission of tubercular germs from parent to offspring that he hesitated to continue his belief in this theory. While some of the cases were very suggestive, it was possible, nevertheless, to find one loophole of escape. The most convincing tests were upon children who were the offspring of mothers in whom the tubercular germs were present to such an overwhelming degree that the mother died from tuberculosis during or at the expiration of her term of pregnancy. He asked whether Dr. Packard considered these cases of direct transmission of a frequency sufficient to form a matter of clinical importance. He had a vague recollection of having read of some experiments regarding the migration of bacteria in the urinary tract. The writer made a number of experiments in which he placed germs at the meatus urinarius, and several hours afterward killed the animals and examined the kidneys, the testicles and various parts of the urinary apparatus. He kept several animals for control. He found that even tubercu-

lar bacilli could be found to have travelled up to the kidneys and up the spermatic cord into the testicles, in every way going against the stream, as it were, and yet no actual tubercular inflammation occurred. The urinary tract is regarded as the most aseptic part of the body, but he thought that it is fairly full of germs, and fancied that tubercular bacilli were often carried through the kidneys without doing any harm.

Dr. W. B. Pritchard said that the attitude of the insurance companies, both here and abroad, regarding tuberculosis is of interest. Without one exception, all applicants who give a tubercular history on either side are barred for a certain length of time, if not altogether, and when accepted have to pay heavier premiums than are ordinarily asked. This seems to point to the conclusion that they accept the doctrine of hereditary tuberculosis.

Dr. Packard closed the discussion by saying that the number of children of one, two and three months of age that have tuberculosis is almost conclusive proof that hereditary tuberculosis is more common than one would think. When it is considered that it is not necessary to have a tubercular genito-urinary tract in order to have tubercle bacilli in the semen, one can easily understand with little difficulty how an impregnated ovum may be tubercular. In answer to Dr. Luckett, he stated that several cases had been reported in literature which have been similar to that of Dr. Mandelbaum—of a tubercle bacillus imbedded in the head of a spermatozoon. He also claimed that tubercle bacillus could be cultivated from blood, as he had been able to demonstrate cultures taken from umbilical and portal veins.

BOOK REVIEWS.

Uric Acid as a Factor in the Causation of Disease. A Contribution to the Pathology of High Blood Pressure, Headache, Epilepsy, Nervousness, Mental Diseases, Asthma, Hay Fever, Paroxysmal, Hemoglobinuria, Anemia, Bright's Disease, Diabetes, Gout, Rheumatism, Bronchitis and other disorders. By ALEXANDER HAIG, A.M., M.D. (Oxon), F.R.C.P. 6th Edition. Revised and Enlarged by 100 Pages. 8vo. pp. 987. 75 Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, cloth, \$3.50 net.

This is an example of the class of books of which the medical profession stands in great need. In fact, it is a finished study and a thoroughly well treated monograph on what seems to have been a rather imperfectly studied subject up to the present time. The results of too much uric acid in the human organism seems to have been but imperfectly understood in the past and we are certain that a careful study of the work before us will serve to elucidate the matter very much to him who reads the book before us in a thorough manner. The author has devoted a number of years to the task of elucidating the many problems connected with the question of uric acid in the causation of diseases. In this he has been aided and encouraged by some of the most prominent men in the English medical profession. That he has profited by such aid is evidenced by the work before us.

The book before us begins with an introductory chapter devoted to a history of examination for urea. In this we are presented with a large number of interesting facts of more than ordinary interest and value. In the succeeding chapters are considered the Formation and Excretion of Uric Acid, Uric Acid and Metabolism, and Uric Acid and the Circulation. After considering these general topics, special diseases are taken up in regular order. Neurotic diseases and mental diseases come up first. Among the diseases considered in connection with uric acid are Raynaud's disease, paroxysmal, hemoglobinuria and anemia, albuminuria and Bright's disease, and glycosuria and diabetes mellitus. Then comes what may be looked upon by many as being the most important, as it is one of the first whose true etiology has been determined with some degree of accuracy. Our readers will readily understand that it is to gout we are alluding. Rheumatism and morbis conditis are next taken up and this is quite fully considered; a chapter then following which is devoted to treatment. The last and concluding chapter is on methods and instruments, and it fittingly concludes a work which is destined for many years to come to hold a prominent place among the books of the present decade. It is certainly destined to be an epoch making work.

We have read the book with both pleasure and profit, and we are safe in saying that the same will occur to anyone who will carefully scan its pages. No physician at all interested in his profession but what will recommend it to his colleagues. We are certain that no one who has learned of the true value of this book will permit the opportunity to escape him of obtaining a copy of it. The possession of it and its serious study will certainly prove that it is not only an excellent but a valuable acquisition as well. We can heartily recommend the volume and we desire to add that the publishers have printed and bound it handsomely.

Surgical Diseases of the Abdomen, with Special Reference to Diagnosis. By RICHARD DOUGLAS, M.D. 8vo., pp. 883. Illustrated by 20 full page plates. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, cloth, \$7.00 net; sheep or half Morocco, \$8.00 net.

This handsome, well-printed book is one of which both author and publisher may well be proud. It deals with a subject of the highest importance both to the physician and surgeon, and it has been handled in a masterly manner in the volume before us. The author is certainly conversant with his subject and he proves his mastery of it in the pages of this volume. We should expect this, however, from the fact that he has taught it for years, and that in a successful manner. In the volume before us he touches the key-note, that of diagnosis. For, whilst surgeons have written many learned tomes on the surgery of the abdomen and physicians have descanted at length on the treatment of the various abdominal diseases, none has given us the valuable information concerning diagnosis which is to be found in this volume.

A critical analysis of this work or rather treatise would be a rather difficult matter in view of the fact that the author has made it so thorough and comprehensive. He has permitted no detail to escape him, and more especially, nothing that could possibly prove of value to an operative surgeon. All the different viscera of the abdominal cavity and their various surgical diseases are passed in review and considered in a thorough manner, particular stress being laid upon the finer points of diagnosis in so far as they bear both upon the accurate determination of the conditions presented as well as upon the conduct to be pursued in any operative procedure. It is these very qualifications which make the book before us so valuable, and the manner in which this is all presented by the author adds still more to the value of the work.

We would have been pleased to see the pancreas and its surgical diseases occupy more space, but the subject is one which has been hardly developed. On the other hand, peri-

tonitis, liver affections, and nephritis surgical troubles are given a full share of attention. Gunshot wounds of the abdominal viscera are well considered as also the various subparietal injuries of these viscera. Aneurism and tumors also enter for a full share of attention. In fact, to sum up, the work is a thorough and reliable guide for all those who intend to engage in abdominal surgery. We are sure that no surgeon can afford to do without this work, and this alone should insure a large sale for it.

The publishers have made a handsome book of this with gilt top and bound as well as printed in the best style.

An English Handbook to the Paris Medical School. By A. A. WARDEN, M.D. With Prefatory Letters by Lord Lister and Prof. W. W. Keen. 24mo. pp. 74. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, 70 cents.

This is a particularly opportune little guide for the English or American medical student who is desirous of pursuing a post-graduate course in Paris. The author is an Englishman who practices medicine in Paris and is a permanent resident as well. His knowledge of all medical matters in that city has made him a competent authority on the subject and this he has incorporated in a most interesting manner in the little pocket guide before us. That it is thoroughly reliable is attested by Lord Lister and Dr. W. W. Keen in the two introductory letters which open the book. We would advise all English-speaking physicians and students who contemplate going to Paris, to buy a copy of this handbook, which is well printed and easily carried in the pocket.

La Thérapie Hydrominérale et les Stations Balnéaires de la Belgique. Par le DR. JULES FELIX. 12mo. pp. 102. [Bruxelles: A. Manceaux. 1903. Prix, 3 francs.

HYDROMINERAL THERAPEUTICS and the Bathing Resorts of Belgium. By DR. JULES FELIX. 12mo. pp. 102. [Brussels: A. Manceaux. 1903. Price, 3 francs.

This is an interesting little manuel of hydromineral therapy and withal an excellent guide to the spas of Belgium. The bathing stations of that country are not very numerous, due to the fact that all the possible ones have not yet been developed. The author of the booklet before us is one of those who propose to make known the resources of his country in this particular respect and we may safely predict that his work and that of his colleagues is destined to render the spas of Belgium world-famous as those of France and Germany are to-day. The little book before us, whilst it is short, is well written and deserving of careful perusal.

Progressive Medicine. Fifth Annual Series. Vol. II. June, 1903. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D. 8vo. pp. 427. With 46 Illustrations. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, per volume, \$2.50; per annum, in four cloth-bound volumes, \$10.00.

The present is an excellent volume of the ever-popular *Progressive Medicine* and it is certainly one of the best of those which have recently appeared. As usual, all the reviews are very carefully written with that fine critical discrimination which has distinguished all the work done by the contributors. As we have had occasion to state on a former occasion, an interesting as well as a valuable critical review of the most useful and important advances made during the past year is presented to the readers of this publication in a manner surpassed by none and equalled by few of the reviews of a similar scope and character which are published.

Surgery of the Abdomen, including Hernia, is considered by Dr. William B. Coley, the stomach and intestines taking up the greater share of attention, although peritonitis, hernia and the spleen and pancreas are by no means ignored or neglected. Dr. John G. Clark reviews gynecology in a very thorough manner. Cancer of the uterus, the urinary system in women and inflammatory affections of the pelvic viscera occupy the most attention. Extra-uterine pregnancy forms an interesting part of this report. The blood and diabetes form the major part of the contribution of Dr. Alfred Stengel on Diseases of the Blood and Ductless Glands. As is usual with this writer, his work is thorough, painstaking and valuable. Dr. Edward Jackson, as is usual with him, makes a valuable contribution on the advances in ophthalmology. The diseases of the uveal tract and of the retina occupy a large share of attention, as well as conjunctivitis, in this volume of *Progressive Medicine*.

We are much pleased with the present volume and its contents. It is of superior merit and, as is their custom, the publishers have made a very handsome book of it. We anticipate quite a literary and scientific treat in Vol. III of this series.

La Nature Syphilitique et la Curabilité du Tabes et de la Paralyse Générale. Par L. E. LEREDDE. 8vo. pp. 141. [Paris: C. Naud, 3 rue Racine. 1903. Prix, 3 frs. 50.

THE SYPHILITIC NATURE AND CURABILITY OF TABES AND OF GENERAL PARALYSIS. By L. E. LEREDDE. 8vo. pp. 141. [Paris: C. Naud, 3 rue Racine. 1903. Price, 3 francs 50 centimes.

The latest work of Dr. Leredde is a full development of what he said in a paper read in February, 1902, before the Société de

Dermatologie on the pathogeny of so-called para-syphilitic affections and before other medical societies. In this, he combats the views of Fournier on the subject. He very thoroughly exposes the confusion, uncertainty and want of clearness which have heretofore characterized the contributions made on the so-called para-syphilitic affections. To begin with, he regards the term as a misnomer. In those cases in which a definite syphilitic history can be established, they are, according to his opinion, syphilitic and very distinctly so. The reason that treatment has heretofore proven unsuccessful is that it was not pushed far enough, and on this point we must express our entire agreement with him. There are too many who do not care or are afraid to push mercury as far as it should be. We have had occasion to demonstrate this in cases of general paralysis and cerebral syphilis. So-called heroic treatment succeeded beyond our most fervent hopes.

So far as tabes is concerned, Leredde believes that every case is due to syphilis and that if a definite history to this effect cannot be obtained there is no reason, according to him, to conclude that some are not due to this disease. He makes a very close analysis of the statistics of various authors among whom neurologists are prominent and he shows the truth of his contention in a very rational manner. We must acknowledge that we share in the author's opinion on this subject and an attentive reading of the book before us has only confirmed our opinion, and we have no doubt that neurologists and syphilologists will eventually agree with Leredde. He is very earnest in his treatment of these questions and is very thorough in their consideration. He is a good writer, independent in his methods of thought and independent so far as bowing to authority is concerned. He makes his own observations and draws his own deductions. We would very much like to see an English translation of this book, as it would exercise a very salutary influence on English speaking physicians. As it is written in French, it is a most interesting little work and we expect that it is but the precursor of a larger and more thorough one on the subject. O-D.

LITERARY NOTES.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

La Thérapie Hydrominérale et les Stations Balnéaires de la Belgique. Par le Dr. Jules Félix. 12mo. pp. 102. [Bruxelles: A. Manceaux. 1903. Prix, 3 francs.

La Nature Syphilitique et la Curabilité du Tabes et de la Paralysie Générale. Par L. E. Leredde. 8vo. pp. 141. [Paris: C. Naud, 2 rue Racine. 1903. Prix, 3 fs. 50.]

An English Handbook to the Paris Medical School. By A. A. Warden, M.D. With Prefatory Letters by Lord Lister and Prof. W. W. Keen. 24mo. pp. 74. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, 70 cents.]

Surgical Diseases of the Abdomen with Special Reference to Diagnosis. By Richard Douglas, M.D. 8vo. pp. 883. Illustrated by 20 full page plates. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, cloth, \$7.00 net; sheep or half-Morocco, \$8.00 net.]

Progressive Medicine. Fifth Annual Series. Vol. II, June, 1903. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 427 pages, with 46 illustrations. [Philadelphia and New York: Lea Brothers & Co. 1903. Per volume, \$2.50, by express prepaid. Per annum, in four cloth-bound volumes, \$10.00.]

Uric Acid as a Factor in the Causation of Disease. A Contribution to the Pathology of High Blood Pressure, Headache, Epilepsy, Nervousness, Mental Diseases, Asthma, Hay Fever, Paroxysmal, Hemoglobinuria, Anemia, Bright's Disease, Diabetes, Gout, Rheumatism, Bronchitis and other disorders. By Alexander Haig, A.M., M.D. (Oxon), F.R.C.P. 6th Edition. Revised and Enlarged by 100 pages. 8vo. pp. 947. 75 Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, cloth, \$3.50 net.]

MELANGE.

Tuberculosis Fakirs.—The following, from the *Herald*, is worthy of preservation in medical literature as illustrating the methods of many similar institutions :

When the prosecution is ready to act in suppressing the many so-called "Koch" cure establishments purporting to be affiliated with Professor Robert Koch, the distinguished German tuberculosis expert, but which he has expressly repudiated no less than thirty times in letters sent to representative men in America, a mass of testimony will be ready. In addition to the data already prepared for the counsel of the County Medical Society, which has been investigating these so-called "Koch" lung cure concerns for nearly two years, it was learned last week that a former nurse at the West Twenty-second Street establishment, who has also had experience at several other branches, has volunteered to tell some astonishing particulars about the manner of conducting business in these "consumption parlors."

This woman is now employed at a hospital in this city. She first entered the employ of the so-called Koch Lung Cure Company in Philadelphia, where a sort of training school for nurses is maintained by the parent office. Then she went to the Rochester establishment. Here is what she said when asked about her experience there :

"I had charge of the business department there. I received the patients when they first came to the office ; I placed the advertisements, prepared the tuberculin, and was the general supervisor of the office. I kept the books, and banked the money most of the time."

"What was the treatment that was adopted in that office during the time you were there in charge?" she was asked.

"We got the tuberculin from the Koch Lung Cure office, No. 150 Nassau Street, in little bottles containing about an ounce. This was used with six ounces of albolene. The albolene was colored for the consumption cases and bronchitis, and the tuberculin that was used for asthma was plain white. We used alkanet root for coloring."

"How many patients were cured at that place?"

"None."

"How many ever gave testimonials as to being benefited or cured?"

"I think we got three who said they had been benefited, but never any that were cured."

This nurse was then asked about a letter which she said she had written by the direction of Wallace Cleveland Clark, M.D., the head of this particular so-called Koch Lung Cure Company, running as follows:

"We are interested in your case, and want you to get well. We are glad to say that, through the generosity of a wealthy lady, whom we have cured, certain money has been placed at our disposal to assist deserving cases to take our treatment. Call soon, as we are making this same offer to others, and it will be a case of first come first served.

Respectfully,
K. L. C."

"What does 'K. L. C.' stand for?"

"The Koch Lung Cure."

"Was that the way Dr. Clark directed you to write the letter?"

"Yes."

"Do you know whether or not a generous lady, or any lady, was cured by the Koch lung cure, and had deposited a sum of money for the purpose of benefiting other sufferers, as stated in in this letter?"

"I can say positively that I know no wealthy lady was cured in Rochester, and that there was never a dollar deposited for any such charitable purpose."

"What would you say, basing your statement upon your experience with the company while you were in its service, and from your observation, is the main object of the company in its advertisements?"

"To get money, to get rich, and absolutely nothing else."

"From what you know of your own knowledge concerning the company's mode of treatment and sale of medicine and general advertisements, would you state whether or not there is any virtue in its treatment, and if it does humanity good or relieves the sick and suffering from consumption?"

"I would not take it myself."

"What do you say generally, based upon your experience?"

"I do not believe that it is any good."

Besides the testimony of this nurse, who has been in consultation during the last few days with Mr. Champe S. Andrews, the counsel for the New York County Medical Society, the method of the spurious "Koch" companies in obtaining testimonials has been investigated. Here are extracts from a letter sent to a woman in Washington, D.C., signed by W. C. Clark, the president of the concern:

"DEAR MADAM: You are probably aware of the fact that your testimonial has been inserted in the papers, and we realize that you are put to considerable trouble in answering letters and inquiries that come to you about your cure.

"Should anyone desire to have you call and see them at their home, and you can spare the time, we would be very much pleased to have you do it. Of course, a dollar would be a very small fee for such a visit, and we would be very glad to pay it. * * *

"Kindly instruct us to answer them (the letters) for you, and we will simply state that your case was cured, as stated in the testimonial. I believe that is all that is necessary. Hoping that you will take this in the spirit in which it is sent, and will allow us to at least give you the amount that you would otherwise earn for the same amount of time given, I mean, twenty cents per letter and twenty cents for each inquiry, I remain,
Very sincerely yours, W. C. CLARK."

This adroit scheme to obtain many alleged testimonials is said to have had an odd sequel, which may be brought out in the crusade of the County Medical Society against these impersonators of the German tuberculosis investigator.—*Med. News.*

Libel on Physician in Board of Health Preamble.—The Ohio case of Mank vs. Brundage and others was brought by a physician against the members of the board of health of a village for libel in causing to be published in a newspaper: "An Order to Prevent and Restrict Infectious Diseases. Whereas, the board of health of the village of Delphos, Allen and Van Wert counties, Ohio, after careful consideration, has become satisfied that in said village a number of deaths have recently resulted from the carelessness and negligence of the physician attending the patients in childbirth soon after attending and handling other patients affected by blood poison and other infectious diseases, and that from the same cause others in said village have greatly suffered and barely escaped death: Therefore, it is hereby ordered by the board of health

of the village of Delphos, Allen and Van Wert counties, Ohio, that no physician or surgeon or midwife, or other person who has heretofore or may hereafter practice or attempt to practice medicine, surgery or midwifery in any of its branches, shall within said village attend as physician, surgeon, or midwife, or touch or handle, any women in childbirth, nor perform any act of surgery, or touch the mucous membrane of any person within thirty days after such physician and surgeon, midwife, or other person practicing or attempting to practice medicine, surgery, or midwifery, has touched or handled any person affected with blood poison, gangrene, erysipelas, or other infectious disease, except in continuing to treat his or her patients affected with the same, and no other infectious disease." The answer of the members of the board admitted the passage by them of the preamble and order as charged, and that the same was placed on the record of the board's proceedings, but averred that they passed the order as members of the board of health; that they had reasonable and probable cause to believe and did believe the facts stated to be true, and published the same under an honest belief that such publication was required of them in the due discharge of their official duties as such board, and denied that the same was published maliciously, or with any intent to injure the party suing. The Supreme Court of Ohio holds that the preamble, construed in connection with the order and the pleadings, was libelous per se, or by itself, and the publication of it was not privileged. It was the duty of the court to so instruct the jury, and not to submit those questions for their determination. On showing by a preponderance of the evidence that the preamble was published as charged, and that the party suing was the physician intended by the members of the board and understood by the community as such physician, he was entitled to recover at least such compensatory damages as were attributable to the publication. If, in such case, the evidence warranted a finding that in the passing and publication of such preamble some of the members of the board were actuated by express malice and others were not, and the jury should so find, it would be proper practice to render a verdict against all the members for compensatory damages, and an additional amount as exemplary damages against those found to have been guilty

of express malice. The result to be reached in the present instance, the court says, was the order providing for the conduct of physicians in the village. To reach this result, however, imminent the duty of the board to pass and publish a proper resolution to correct the evil which it was assumed existed, it could not be at all important to charge negligence on the part of any physician. Not being essential, or even important, that the board should undertake to fix the blame on any particular person, it followed that the preamble was not a privileged communication, and that those who passed and published it assumed the responsibility as individuals, and could not shield themselves by merely showing that they acted as members of the board, and that the order itself was a proper one.—*Jour. A. M. A.*

Medical Centenarians.—Picard writes an interesting historical sketch of his subject in the *Gazette Méd. de Paris* for April 4 and 11, reviewing also the life insurance and other statistics in regard to "when and how physicians die," quoting extensively from THE JOURNAL. Hippocrates, he states, is said to have lived 104 years, and 140 is ascribed to Galen by one enthusiastic historian, but not by others. Three Arab physicians are cited as centenarians, and Picard has found records in France of four before Patenôtre, who died in 1709, aged 103. Poncy, who died at Paris in 1724, was born in 1623 and practiced to 100. Politiman is another French physician who lived into his second century—his biographer states to 140—and was in the habit of getting tipsy every evening, as also Dr. Espagno, who died at 112. A portrait of a Dr. P. Defournelle, inscribed 1690 to 1810, is preserved at Paris, but the first official record of a medical centenarian in France is Dr. A. Chaule, born 1741, who lived to be 103, followed by Dr. Fau, also 103. Dr. Zalewski's death notice recorded at Bordeaux credits him with 111 years, and states that he was born in 1780, but no official record of his birth has been found. Dr. Bossy, who died at Havre in 1897 at the age of 104, was in such good health to the last that he made a trip to London three years before. His grandfather was 99 at the time of his death, and his father 108. The latter died at London in 1848 and had always enjoyed good health. Dr. Jean David of

Montpellier celebrated his 102d birthday, February 10, 1903. He retired from active practice at 98. Picard has found four medical centenarians among the English members of the profession of the last century and five in this country. The latter are Dr. D. Smith, Cairo, Ill., and New York, who is said to have married at 123; Dr. D. Burke, Washington; Dr. H. Courtnay of Hancock; Dr. W. B. Sprague, and Dr. O. S. Taylor of Auburn, N. Y., concluding with Dr. C. Graham, whose centennial was celebrated by a banquet mentioned in *THE JOURNAL* in 1884, p. 549. Dr. Mavrogenis was a Greek physician, who attained the age of 100 in 1898, and a Swedish physician, Dr. Ivervex, is said to have invented an elixir which enabled him to live to 104. Only two Italian medical centenarians are mentioned and both died in the eighteenth century. A. Dr. O. Kownasky in Russia is said to have served in the Napoleon wars and died in 1887, aged 109. He was paralyzed for sixteen years before his death, but continued his practice to the last. It is said that he dictated a prescription a quarter of an hour before he died. In Spain Dr. F. Verdugo lived to be 105, practicing at Salamanca for eighty years, until his death in 1867. Another Spanish colleague was mentioned in 1875 as 105 years old, living in good health with a wife of 103. Dr. David, above mentioned, seems to be at present the dean of the profession the world around. Picard hopes to hear from others in regard to medical centenarians, as he would be glad to render his compilation as complete and accurate as possible. Communications addressed to him, M. L. Picard, care *Gazette Méd. de Paris*, 93 boulevard St. Germain, VI, Paris, will be thankfully received. He cites his authorities in detail, with extracts.—*Journal Am. Med. Ass'n*.

Ateleiosis: A Form of Dwarfism.—Hastings Gilford gives the histories of five cases of this disorder, the name of which is derived from the Greek *ateleiosis*, signifying "not arriving at perfection." There are two varieties of the affection. In the one there is conspicuous delay of both growth and development up to the onset of puberty. The sexual system then matures, and the development of the body becomes arrested, leaving the individual sexually complete, but in other respects with the proportions and outward appearance of stereotyped

childhood. Hence in this variety there is infantilism up to puberty and after that period there is dwarfism only. But in the second variety there is, as a rule, both dwarfism and infantilism throughout the whole of life, for the sexual system never matures, while growth may continue up the age of thirty or even later. The cases reported by Gilford are all of the second or a sexual variety. This is subdivided according as the malady begins in fetal life, in infancy or early childhood, or at some later period of development. The article is fully illustrated and gives measurements and radiograms showing comparisons between the subjects of ateleiosis and normal individuals. The previously reported cases are also reviewed. Ateleiosis should be regarded not as a disease *per se*, but merely as a symptom or condition. It is to development what dwarfism is to growth. As regards the pathology of the condition there is no evidence that the brain, pituitary body, thyroid, pancreas, or any organ is the seat of origin of the disease. We only know that there is defective development of the whole body, and that this is often preceded by hypoplasia of the sexual organs, and is prone to be associated with some developmental anomaly of other parts. But there is no evidence showing to what this abnormal delay of development is due—*Practitioner*.

Education Preliminary to Medical Study.—*The Mississippi Medical Record* says this is a matter "of primary and paramount importance, and it is to be regretted that Dr. Billings did not emphasize the evils of the course pursued by many of our so-called reputable colleges even more forcibly. The reason the 'mortality rate' at examinations by our state boards is so high is easily accounted for when we find that fully one-half of the applicants are almost totally ignorant of the rudiments of English grammar and do not know the meaning of many of the simplest words of our ordinary language. We do not expect that the medical schools will ever require a college diploma as a requisite for entrance. It is not necessary, as many of our ablest practitioners are living witnesses. But it is pitiful in the extreme to see how far some of our schools descend in their eagerness to get patronage. Why can not we help? Most students, especially in our country districts, have

preceptors and these gentlemen, despite the insinuation of a recent 'Fable' of Mr. Ade, do aid their students very materially in their choice of and preparation for their medical colleges. Can not these preceptors impress on their students the advisability of devoting their spare time to the acquirement of that general knowledge that will be of real benefit to them, not alone during the college course but throughout their entire lives, rather than to set them digging aimlessly into the primary branches and laboriously acquiring a few unimportant facts that they would take up 'by absorption' during their first course if their minds were better fitted to contain them?"

Further Gifts to the Harvard Medical School.—In his speech at the commencement exercises of Harvard University, President Eliot said: "This year our treasurer reports that the cash addition to the property of the college is \$1,300,000. Of that sum \$500,000 consists of contributions to the great undertaking of the medical school. And that leads me to speak of this particular direction of the beneficence of the friends of the university—for medicine. More than \$2,000,000 have been attracted to the medical school undertaking. The money comes easier there than anywhere else. What is the reason? It is directed in this way by the profound sense of gratitude of of many men and many women for the service which medicine has rendered to them, to their children, to those dear to them. It is directed in this way by the conviction that many more discoveries and unimagined blessings are coming out of medical study into the service of the world. This very day there have been added to the funds provided for the medical school undertaking \$285,000. And both gifts—there are two—come charged with the most sacred purpose to do good in this world."

NEW INVENTIONS.

731,004. Thermocauter. Louis Wirsching, New York, N. Y.
Filed Feb. 21, 1903. Serial No. 144,489. (No model.)

Claim.—1. A thermocauter, comprising a cauter-tube having a port or opening in one side thereof through which the gas conducted into the tube initially escapes, a burner-tube extending into said cauter-tube and through which gas is adapted to be conducted, and a controller movable relatively to said opening in the cauter-tube and co-operative therewith to direct the flame produced by the combustion of the escaping gas upon the cauter proper, for the purpose set forth.

2. A thermocauter, comprising a cauter-tube having a port or opening in one side thereof through which the gas conducted into the tube initially escapes, a burner extending into said cauter-tube and through which gas is adapted to be conducted, a controller co-operative with said opening in the cauter-tube to direct the flame produced by the combustion of the escaping gas upon the cauter proper, and means for retaining the controller in a stationary adjusted position relative to the cauter-tube, for the purpose set forth.

3. A thermocauter, comprising a cauter-tube having a port or opening in one side thereof through which the gas conducted into the tube initially escapes, a burner-tube extending into said cauter-tube and through which gas is adapted to be conducted, and a controller co-operative with said opening in the cauter-tube to direct the flame produced by the combustion of the escaping gas upon the cauter proper, the said controller being in the form of a tube slidably mounted upon the cauter-tube and provided with a spring arm or part engaging with the cauter-tube for frictionally holding the controller in adjusted position relatively thereto.

4. A thermocauter, comprising a cauter-tube having a port or opening in one side thereof through which the gas conducted into the tube initially escapes, a burner-tube extending into said cauter-tube and through which gas is adapted to be conducted, and a controller co-operative with said opening in the cauter-tube to direct the flame produced by the combustion of the escaping gas upon the cauter proper, the said controller being in the form of a tube slidably mounted upon the cauter-tube and being of greater diameter than the outer diameter of the

Reported especially for the JOURNAL by H. B. Willson & Co., patent attorneys, 8th and F Streets N. W., Washington, D. C.

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cauter-tube so as to provide a space therebetween, one end of said controller-tube being open and the other closed, for the purpose set forth.

730,911. Plaster-Package. Frank F. Hawkins, Troy, N. Y.
Filed Sept. 11, 1899. Serial No. 730,068. (No model.)

Claim.—1. A plaster-package comprising medicament in a form susceptible to atmospheric influences inclosed in a hermetically-sealed chamber formed between two impervious sheets, one adhesive and the other non-adhesive, one of said sheets being superposed upon the other, and having their edges, only, in sealed adhesive contact with each other.

2. A plaster-package comprising in combination two impervious sheets, one adhesive, the other non-adhesive, applied one to the other, and having their peripheral edges, only, forced into sealed adhesive contact with each other, thereby forming between said impervious sheets a hermetically sealed chamber between inner portions of said sheets not in adhesive contact; and medicament, in a form susceptible to atmospheric influences, supported upon said adhesive sheet within said chamber.

3. A plaster-package comprising an impervious adhesive sheet; a deposit of medicament on the central portion thereof; and an impervious non-adhesive sheet superposed upon said adhesive sheet and medicament, the extreme edges, only, of said impervious sheets being in sealed adhesive contact, and their intermediate portions surrounding said medicament being not in adhesive contact.

4. A plaster-package comprising medicament in a form susceptible to atmospheric influences inclosed in a hermetically-sealed chamber formed between two impervious sheets, one of which is adhesive, the edges or such sheets being die-cut and sealed, substantially as described.

5. A plaster-package comprising medicament inclosed between two sheets, one of which is adhesive, the edges of said sheets being die-cut, and the cut edges, only, forced into adhesive contact with each other by die-pressure only.

731,201. Supporting-Bandage. Lee R. Miller and Emanuel T. Richert, Akron, Ohio. Filed Jan. 28, 1903. Serial No. 140,877. (No model.)

Claim.—A supporting-bandage comprising a ventilated cap, shaped to cover the glans penis and termination at the base of the glans; and elastic cords for holding said cap in position, said cords being detachably connected to said cap by means of clamps.

MISCELLANEOUS NOTES.

Celerina After the Removal of Alcohol.—After the removal of alcohol, Celerina, given in doses of from one-half to one ounce every four hours, is speedily followed by the most characteristic symptoms of improvement.

Dermapurine in Alopecia Areata.—

CHARLESTON, ILL., June 2, 1903.

DERMA REMEDY CO., St. Louis, Mo.:

Gentlemen—Some time ago I wrote you for some Dermapurine to test on a case of acne rosacea that had been the rounds among our doctors without benefit, promising to test it and report results, which I now do. The case is cured and happy, and I am more than satisfied with the result. I shall further test your remedy in future cases, believing it superior to any other with which I am acquainted, and I am always looking for the best.

Yours truly,

H. C. BARNARD, M.D.

Neurilla in Nervous Prostration at Climacteric.—I have had occasion to test Neurilla in one striking case. A woman, 42 years old, who had been suffering from nervous prostration at the climacteric period, had suffered with dysmenorrhea for five years. I placed her upon Neurilla, in teaspoonful doses, six times per day; finally I reduced the dose to two doses a day, and the improvement was almost immediate. Neurilla is certainly a boon to the female sex.

Coble, Tenn.

J. A. BATTON, M.D.

Displacement of the Uterus.—Many cases have been recently reported of success in treating displacement, by first reducing the inflammation which led to the enlargement and subsequent displacement of the organ. Versions and flexions often originate in inflammation of the parenchyma of the womb, pelvic peritonitis, and diseases of the appendages. The result of hot water douches followed by the astringent, antiseptic, alterative Medicated Uterine Wafers (Micajah & Co.) is in some cases marvelous.

Dioiburnia and Neurosine in Painful Menstruation.—

I prescribed Dioiburnia and Neurosine in a very obstinate case of painful menstruation with the most satisfactory results. I recommend this combination in the treatment of dysmenorrhea and all uterine diseases accompanied by nervousness.

J. W. KEPPEL, M.D.,

1007 Market St., Youngstown, O.

Sanmetto in Difficult Cases of Cystitis, Prostatitis, Incontinence, Impotency and Hematuria.—I have used Sanmetto very extensively in my practice for years, and as evidence of my perfect satisfaction, will say that I continue to prescribe it in all difficult cases. In cystitis, prostatitis, incontinence, impotency, and many cases of hematuria, I use Sanmetto with assurance of perfect success. In my female practice I find it the remedy par excellence, especially as a sexual tonic and a mammary re-builder. I shall continue its use in typical cases.

O. L. HUDSON, M.D.

Princeton, Ind.

Summer Complaint.—The mucous membrane of the gastro-enteric tract rids itself of the inciting material of summer complaint with the assistance of very little internal medication, though this act is not performed without making a demand upon the general storehouse of energy. Add to this the depression caused by toxemic absorption, and the marked exhaustion of an acute attack is readily explained.

Probably there is no better aid to further beneficial medication than Antiphlogistine, applied warm and thick over the entire abdomen. The dressing to be immediately covered with absorbent cotton and a suitable compress. Peristaltic spasm is at once reduced, intestinal comfort promoted, and refreshing slumber invited. Acting reflexly, Antiphlogistine restores the muscular tone of the intestinal walls and energizes the entire economy to resist the prostration from summer complaint, so common to infant and adult during the humid months.

Treatment of Eczema of the Scalp.—Parker pleads for more patience and perseverance in the treatment of this troublesome affection. So many physicians prescribe time or pronounce the condition hopeless that parents often discredit the physician who promises recovery within a reasonable time. The first measure in successful treatment is a thorough washing and shaving of the head. Castile soap and much water of a temperature not less than 100F. should be used. The same water should not touch the head twice and pledgets of absorbent cotton are to be used to remove the crusts. When cleansed the head should be dried with a clean soft towel. During treatment the pillow case should be consigned to the wash-tub each morning and a clean one put into its place. These are not over particular but imperative details, if favorable results are desired. Jugglery in prescriptions can not avail and rigid hygienic measures, extending to all the surroundings, must accompany medical treatment. The second step is in the case of nursing infants to treat the morbid constitutional condition, generally found in the mother. The alternative, iodine, is nearly always applicable and in severe cases should be administered to both mother and child. If the irritability attending the eruption requires special treatment, bromidia should be given. Some children will require an easily assimilated iron tonic. The bowels must be kept open with a mild aperient given in the early morning. Locally boroglyceride is the best ointment. Ethol is also a remedy of much value, being a powerful corrector of depraved conditions in fluids and tissues. It is employed diluted, according to the severity of the case, and sprinkled upon a thin cap of surgeons' cotton. The cap should be renewed, and the old one burned, daily.—*Medical News.*

Melancholia, Insomnia and General Lowering of Nerve Power.—In a very forceful and interesting paper on this subject, published in the *Cincinnati Lancet-Clinic*, Dr. T. D. Fink of Louisville, Ky., writes the following: "I am convinced that there is no other remedy so useful and attended with such satisfactory results in the treatment of melancholia with vaso-motor disturbances, anemic headache, emotional distress, and active delusions of apprehension and distrust, as Antikamnia Tablets. These tablets also increase the appetite and arterial tension, promote digestion, and are particularly serviceable in relieving the persistent headache which accompanies nervous asthenia. In neurasthenia, in mild hysteroid affections, in the various neuralgias, particularly ovarian, and in the nervous tremor so often seen in confirmed drunkards, they are of peculiar service. Patients who suffer from irritable or weak heart, needing at times an analgesic, can take them without untoward after-effects, knowing that the heart is being fortified. In delirium tremens, they relieve when there is great restlessness with insomnia and general lowering of the nerve power. The pain of locomotor ataxia yields to treatment with Antikamnia Tablets in a remarkable degree, their analgesic power being of a peculiar kind, in that they will relieve painful affections due to pathological conditions of the peripheral nerves—as neuritis, etc., also lumbago, sciatica and myalgia. In chronic catarrh of the stomach, with its often accompanying headaches, in cardiac dropsy, and in ascites, they are of decided benefit."



Cutaneous Pigmentations of Genital Origin in the Woman.

—Paul Dalché and Ch. Fouquet present this very interesting paper and cite various illustrative cases. One of these was a patient aged fifty-seven years who was afflicted with black pigmentation. Until the age of fifty-three years, she had always enjoyed good health. But at that time she began to grow thin, losing her appetite and becoming weak and languid. There was no organic lesion discoverable to explain her condition. There were two striking phenomena in her illness. One was the frequent outbreak of pustules which, without cessation, developed on the fingers and sometimes on the body; the other was a general discoloration, more pronounced, on the hands, fingers and thighs. Although she was very careful in her personal hygiene, she noticed that her linen became quickly soiled. Her hands, principally at the finger-tips, were visibly black, not uniformly, but in places. In vain she washed them twenty times a day—the pigment reappeared. Menstruation had ceased one or two years before. This effect was rebellious to treatment.—*La Gynécologie*, February, 1903.

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ORIGINAL COMMUNICATIONS.

THE TREATMENT OF LEPROSY.*

BY A. H. OHMANN-DUMESNIL, M.D., ST. LOUIS.

Leprosy, that awe-inspiring scourge of the human race, stands to-day an unsolved problem awaiting a proper solution. It is the great riddle of the sphynx, which some unknown Œdipus may perhaps solve. From time immemorial it has engaged the attention of the most learned sages, philosophers and men of science, and it stands to-day as mysterious and awful as it did at the beginning. It is the black and lowering cloud over humanity, which even we, with our boasted scientific attainments, have not yet been able to dispel, and all our puny efforts have resulted in the same failures that the misdirected labors of our forbears did. It is the one problem before which every one must bow and acknowledge *non possum*. It is the most stubborn, as well as the most difficult with which to grapple, of the great triad, the two other members of which are tuberculosis and syphilis.

The great similarity to one another which these processes present has led to the idea, wrongfully entertained by some, that one was merely a different stage of the other; as, for instance, that leprosy is the quaternary stage of syphilis, when we know it to be a fact that the two diseases have no such close relationship; and so for tuberculosis. What we do know is, that all three are essentially chronic in character and insidious

*Read before the Section of Cutaneous Medicine and Surgery of the American Medical Association, and reprinted from the *Journal of the American Medical Association*.

in their beginning. They are also essentially destructive in character, and they all attack every tissue of the human organism. We further know that leprosy and tuberculosis present specific bacteria of the bacillus, and the best investigators are of the opinion that syphilis also is characterized by a specific bacterium. It is also held to be most probable that the bacteria are not the direct causes of the disease, but rather their toxins, a most reasonable view in consideration of the fact that serum therapy, based on this manner of considering the subject, has proven so successful.

There is another point of more than ordinary interest in this whole question, in view of the fact that is the one of highest interest to the victim of any one of these diseases, which is, what is the proper treatment, and is there a cure? In the case of syphilis we are positively assured by some that there is an absolute cure, whereas others deny it. A third class tells us that the disease cures itself spontaneously. It is certainly a difficult matter to decide such a question, especially when our methods for a final determination are so defective. So far as tuberculosis is concerned, we have given to us positive assurances that it can not only be cured, but that it has been in numerous instances. And yet, even here, some doubting investigators have more or less maliciously demonstrated some remains of undoubted tuberculous nature in certain of the reputed cured cases.

Quite different is it in the case of leprosy. A cure has not yet been claimed by a leprologist who knows the disease thoroughly. Marked improvement under certain forms of treatments have been noted, and no one has denied these; but a cure has only been suggested as possible under the treatment which has been employed. But of this I will speak later on in the course of this paper. What I purpose noting is the treatment of the disease, and this will, very naturally, give rise to a few remarks on subjects connected with it. I do not purpose speaking of the cure of leprosy, for this has not yet been discovered. The methods of study have been improved, and we are daily making some steps which bring us nearer to the wished-for solution of this great problem. We cannot say that it is impossible; we can only acknowledge that our methods are impotent.

The problem which confronts us is to devise, discover or formulate a successful method for the cure of leprosy. For its complete eradication perfect isolation is sufficient ; for its cure we must have something equally as certain,

It is not proposed here to speak of all the methods of treatment of leprosy, for their name is legion, and the majority of them have fallen into ignominious desuetude. They have been tried and found wanting, and have fallen into a merited oblivion. Many of these methods were based on superstition, the craft of magic (white or black), religious recitations, incantations, amulets, prayers, ex-votos, and the entire arsenal of the belief in the miraculous and the outlandish. These are still practiced in districts remote from all the semblance of even the beginnings of civilization. And we have no doubt that certain creeds have followers to-day who believe or pretend to believe that they cure even leprosy by their prayers, which are really blasphemies in the eyes of those whose faith is pure and true. With all these we have nothing to do. What will be considered are medical measures and the success which has so far attended their exhibition ; and of these but a few will be chosen and such as have proven of some value.

It may not be inopportune, before entering into a consideration of the different methods of treatment, to pass in short review some of the views which have been held in regard to the manner in which the disease is acquired. There are those who have invoked telluric influences, especially dampness, and yet the disease is seen to occur in places of such varying meteorologic conditions that this can not be considered as entering into the question any more than a hot or a cold climate. For leprosy is observed to occur in the torrid heat of India and in the glacial zone of Norway as an endemic disease. The theory that it occurs principally in those who live on the sea coast and, incidentally, chiefly in fish eaters, as has been advanced by Mr. Hutchinson, is not supported by facts, as is aptly proven by its occurrence in those who have never been near the sea and those who have never eaten fish, either from sweet or from salt waters. Then we have a cause which has been invoked, which has met much opposition and which has caused, as it is yet causing, much acrimonious discussion.

Of course, you will immediately recognize this cause as contagion. The contagionists advance some very good arguments in support of their views, and the non-contagionists are not slow to adduce facts to prove their position. The most active among the latter is, beyond all doubt, Zambrio, who has made it the object of his life to endeavor to prove the non-contagiousness of leprosy. He makes a very strong plea for this view in his *Voyages parmi les lépreux*, a small book full of very interesting matter, rendered doubly so from the fact that it is from the pen of a capable leprologist. That this question of contagion is anything but easy of solution is evidenced by the fact that the lepra conference held in Berlin did not pronounce itself definitely on the subject. Under these circumstances it has been considered the safest course to follow by both sides party to this discussion to agree on isolation as the best measure to pursue until something more definite is known concerning the nature of leprosy.

Another theory to account for the increase in leprosy, and it is one which has a number of adherents, is the one which makes the disease a hereditary one. This manner of thinking is one of the offshoots of the non-contagionists. They contend that, while lepers are, as a rule, sterile, they propagate to a sufficient extent to furnish a continually increasing number of lepers, and where the sexes are not separated the intermarriage or concubinage of lepers with non-leprous individuals inevitably results in the production of offspring which are lepers. And, as a further proof of heredity, is adduced the fact that the disease will skip a generation to appear in the succeeding one. It is this question of heredity which has led so many eminent leprologists to advocate a strict system of segregation, which, if carried out properly, is certainly destined to ultimately cause the disappearance of leprosy were it not for one factor which should be taken into consideration. This important factor is inoculation. No one denies the inoculability of leprosy, but all are not yet agreed on the method in which it occurs. The introduction of the bacillus of Hansen directly into the human tissues or through an intermediate host function has been proven to be possible. These bacteria have been found in the soil on which homes of lepers were built, and subsequently destroyed by fire for the purpose of

destroying all possible causes of future infection. Mr. Impey, of South Africa, has successfully inoculated leprosy in some natives so that we may look on the inoculability of leprosy as a proven fact.

Now come certain students of leprosy who contend that the disease cannot be inoculated except under certain conditions. They further contend that these conditions must be present, and, as a matter of fact, are usually present; all of which is yet a matter of *sub judice*. Many of these also sustain the thesis that there exists no such thing as cases of leprosy acquired through contagion, and that all are inoculated. Some very harassing discussions owe their origin to the proper interpretation of the terms contagion and inoculation, but this is neither the time nor the place to indulge in hair-splitting distinctions. That which concerns us more is a consideration of the conditions which are regarded as necessary to the acquiring of leprosy. In the first place, and regarded as the most important, is the existence of a predilection to the disease. This is considered a racial condition and accounts for the rapid dissemination and increase of leprosy among certain peoples or races. Of course, this is merely a theory which, unfortunately for its upholders, is not supported by facts. A short inquiry into its weak points may not be uninteresting. In this theory of predilection it has been found necessary to call in certain racial characteristics. Thus the Chinese, Japanese, Hindus and Sandwich Islanders were considered sufficient at first. Then it became necessary to add Norwegians and the Indians of the different North American countries, which very naturally led to the inclusion of the natives of the West Indies. This gradual accretion has finally resulted in the inclusion of all countries with the exception of nearly all the European states and of the United States. And yet we find that the natives of some of these become lepers, albeit purely Caucasian. The argument that these have traveled in countries where leprosy is endemic and lepers are common and thus acquired the disease by contagion will not hold. For cases are noted and I have seen some in which the disease was sporadic; in which the affected individuals not only never traveled where leprosy was ever observed, but had never seen or had any dealings with anyone who might have a predilection for leprosy. It is true

that such cases are few in number, but there are enough of them on record to prove a stumbling block in the road of those who spin fine theories out of very weak material. But it would certainly prove a wearisome task to take into consideration all the theories which have been advanced and examine into the validity of the arguments which are made to hold the various views which are announced. Enough has been said to give an idea of one of the many problems set before leprologists and of the difficulties which surrounds the task of arriving at a solution of any one of them. With these few preliminary remarks to introduce the subject I will now enter into a consideration, necessarily short, of the question of the treatment of leprosy; and, in this, I do not propose to give a complete and detailed account of all those which have been proposed and tried, but rather pass in review a few which have offered the most encouragement and seemed to be the most rational in their application as well as the best in the results obtained by means of them.

*In speaking of the treatment of leprosy, the first agent to which we naturally feel our attention called is Chaulmoogra oil. It is perhaps the oldest one which has been employed in the treatment of leprosy, and even today it enjoys a reputation far superior to all others on account of the very good effects which have followed its use. Originally used in India, if we are to believe those who have written of it, it is still regarded there as the only medicinal agent of any worth in this disease. And it is not only in India but in other countries as well that it enjoys this exalted reputation. Those who have had an opportunity of observing its action and its effects in a cold, deliberative manner are also ready to accord to it the praise which it certainly deserves. But to attribute to it the power of curing, which has been claimed for it, none who has observed it is willing to concede. It is universally admitted as a fact that it will bring about improvement in a case of leprosy, but that it will cure is conceded by none. And it is right here that the function of the leprologist is called into active requisition. In a case of reputed cure he should examine it with all due regard

*This treatment is not new and it has the added disadvantage of not being a cure, as attested by physicians who have seen cases treated by the author. We propose at some time in the near future to publish some pictures of these treated cases.

and not jump at conclusions because external appearances of a general character are such as to lead to a mistaken idea that no leprosy exists. Every small symptom and sign must be carefully noted and the complete absence of all must be looked on as deceptive, for it must never be forgotten that while Chaulmoogra oil improves much, it has never yet cured leprosy. And right here let me warn you in regard to the administration of this remedy. It is fairly well borne when given by the stomach, but the time inevitably arrives when the nausea and other untoward symptoms which this method produces force it to be administered hypodermically. This should be done at the very beginning, and the oil should be applied externally. In this manner much better results may be obtained, although the hope of a final cure by this means may be considered *nil*. We are well acquainted with the claims which have been made for this agent, but none has ever been substantiated in a manner that would prove satisfactory to one who has made this disease a study. In fact, the result has usually been the reverse. Not very long since a Chinese leper, who was quarantined on the grounds of the St. Louis Smallpox Hospital, was declared cured by the medical superintendent. Among those called to examine into the alleged cure was the reader, who unhesitatingly declared that the Chinaman was not cured of his leprosy, and he was ordered back to his isolation. He still presented some indubitable marks of the disease, and in point of fact was not cured. This opinion was shared in by the other who examined him.

It has ever been thus with cases declared cured by oil of Chaulmoogra, and doubtless will be. One point to which attention should be called in connection with this agent is that in reputed cured cases there is always present the liability of a relapse into a form which will be more severe than the original one for which it was administered. This is an evil of more than ordinary importance, and it is on this account that those acquainted with the fact have hesitated about using this medication. Promises cannot be safely made beyond a certain point, and a severe relapse is certainly very difficult to explain. The enthusiasm of one who has seen but a portion of the results is not sufficient to guarantee the hope of a final cure, and the experience of him who has not devoted years to the study of

the subject and who has not had the opportunities of following any form of treatment cannot be taken either as a positive proof or as a reasonable encouragement to adopt a method which has proven itself fallacious on so many occasions. Do not depend on oil of Chaulmoogra even for a temporary improvement; it is better to resort to other methods.

You will no doubt find many advocates of this oil, and if you do, inquire into their experience and ask them for how many years did reputed cured cases remain cured? Everything in this matter must be carried on in a judicial manner, and the *ipse dixit* of no one can be accepted. Let not the wish be father of the thought, but consider only those things which are proven. We cannot afford to jump at conclusions to-day; we cannot even afford to accept what are but factitious proofs. The absence, supposed or absolute of Hansen's bacillus is not always positive proof of the absence of leprosy. Besides, in such a case, what proof is afforded that this self-same bacillus is not lurking in some tissue beyond the reach of the investigator? Who is it that will be enabled to examine every organ and every tissue of a living subject, and who will take the pains to do so with a dead one? As you can plainly see, the honest investigator is seriously handicapped in an honest endeavor to determine whether a case of leprosy has been or has not been cured, no matter what treatment has been used. But, to briefly summarize the expressed opinions on the use of Chaulmoogra oil in the treatment of leprosy, it may be stated that all investigators as well as leprologists are of the opinion that it has a rapid effect in the way of improving any case. Also that it is best administered hypodermically; and, furthermore, that its discontinuance is attended by relapses of a more or less severe character. Furthermore, all are agreed that it cannot be continued very long by the mouth. These are certainly not very encouraging conclusions, and would lead very few to the adoption of this agent in a country where the propriety of complete segregation is under consideration. In fact, it would lead to the use of other means which would encourage the hope of ultimately successfully obtaining a cure. This is the objective point of all leprologists, and will explain why all frown down any method which cannot afford anything better than relief.

This treatment by means of Chaulmoogra is purely empirical, and not based on any rational cause therefor; it was simply found to be good to produce an improvement in the symptoms of leprosy, and this led to its adoption in the treatment of the disease. And, up to the present, but little improvement has been made in its administration beyond that of employing the hypodermic method in lieu of that by the mouth. Naturally the former method has resulted in the advantage of its being possible to continue the remedy for a longer period of time without any untoward symptoms; but no better final effects have been observed. This is certainly demonstrative of the fact that the method does not repose on a rational therapeutic base, but is rather in the nature of a haphazard measure, in which a partial effect only is taken, and very illogically, as an indication of what the permanent result should be.

Another method to which I desire to allude is that which was inaugurated by P. G. Unna of Hamburg, and which was based on his pathologic findings. As is well known to all who are present, he claimed that lepra bacilla are aerobic and need oxygen in order to continue to exist. It matters but little whether these bacteria be distributed along the walls of blood vessels and lymphatic channels, or whether they be located in the substance of cells. The theory which he promulgated was, in substance, to use such agents as are greedy for oxygen, and by their aid deprive the bacteria of that on which they depend for existence. These agents he found in that class he has so well described—the reducing agents. He expected great things from ichthyol, and his results have been what I have found them to be: improving, but not curing. I will not burden you with the details of his method and its modification. It is sufficient to state that it has never produced more than an improvement. It has never cured. That in which we are more particularly interested is the question of a treatment which will cure. The therapeutics of lepra is improving daily, and we cannot rest satisfied with the dictum that it cannot be cured, any more than we can be with the unproven assertions that certain methods which are prematurely lauded have effected such a result. It is, indeed, a burning question, in view of the fact that so many cases of this disease exist, and that it is apparently increasing the number of its victims. The only manner of

successfully combatting it is to cure, not to attempt to repress it. Attempts at repression are but too frequently futile, and amount to nothing more than a *pis aller*. Segregation and complete isolation will dispose of the cases found and recognized, but can hardly prevent the development of new ones, which experience will lead to conceal themselves, and thus encourage the formation of new foci from which lepra will be disseminated until it again assumes large proportions.

It may perhaps be best to merely mention some alleged cures for lepra which, unfortunately, have not yet been proven to be such. One which has been announced with a great flourish of trumpets by its originator is the treatment by means of the Carrasgilla serum. As has occurred in the introduction of all new methods in so-called incurable diseases, wonderful improvements were observed, and even apparent cures. As in all these cases the inventors were filled with the enthusiasm produced by the delight of having at least discovered a possible cure; and, as has been the fate of all, the ultimate results have been failures. Critical experiments made by competent observers have resulted in unfavorable verdicts, and the alleged wonderful cure has hardly lived long enough to be a nine-days' wonder. It has ever been thus with all these alleged cures for lepra. So many have the disappointments been that many who began with high hopes have become disheartened and merely plod along the beaten tracks of the past, which, at all events, offer some little modicum of satisfaction.

The latest treatment which it has been attempted to make a vogue is that by serpent's poison or the so-called antivenene method. Accidentally discovered and repeated later on with design, it was hailed with delight on account of the great improvement which was observed to follow its use. Great expectations followed the results which were obtained, but, like all its predecessors, it fell by the wayside and it failed to accomplish the much desired effect, that of producing a cure. Theories and hypotheses, numerous enough and sufficiently varied, were advanced to prove theoretically that it was the hermetic stone of leprology. And it, too, failed. It were a loss of time and a trespass on your patience to recount all the will-o'-the-wisps of leprology. It would be sad to give naught but a catalogue of failures, and yet these are the monuments

which line the highway along which leprologists have been traveling for many, many years. The fairy edifice of cure is as far away as ever and seems as difficult to reach as the foot of a rainbow.

The solution of the problem of the true treatment of leprosy is the one which now confronts us. It is one surrounded by difficulties as well as one fraught with the highest importance. It is the true solution of the whole lepra question which, unfortunately, has aroused but comparatively little attention from the governments of the civilized world. The number of those afflicted with lepra, the cost of maintaining those who are unable to earn a living and similar economic considerations are the only questions which have aroused any interest. Not enough attention has been given to the treatment of this scourge of humanity, and yet this is the paramount issue at the present time. This treatment must, of a necessity, be curative. After all has been said there can be no doubt whatever that the cure of lepra is the paramount issue. Leprologists, who are such in the true sense of the term, do not concern themselves much about the palliative treatment of the disease. This is certainly sufficiently well known not to require any further investigations. The methods now known and tried are sufficient for this purpose. A cure for leprosy has not yet been discovered, nor is it my purpose to announce one. The conditions which are offered in the problem are such that certain lines of investigation and experiment must necessarily be followed. The method in general which holds out the best promises of success is, beyond doubt, that based on serotherapy. This is comparatively still in its infancy, and yet it holds out many hopes for an extended usefulness. Roux and Behring have demonstrated the possibilities in the method by the results which have been obtained by the use of antitoxin. Among the conditions necessary to the production of a serum possessing specific properties is the production of a pure culture of the specific bacterium. In the next place, an animal who is immune to the particular disease for which a serum is to be obtained must be found. In the next place, this animal must be of a hardy nature and of a sound constitution when inoculated. Finally, the inoculations must be limited in number, as the serum becomes deteriorated in quality if the animal be inoculated and bled too many times or at intervals which are not sufficiently far apart.

A question of some importance which naturally suggests itself is, what animal would be the best to furnish the serum? In this question are involved many conditions, but so far as present knowledge on the matter extends there is little doubt that the male goat and the mule are the animals best adapted to the purpose, both on account of immunity and because their physique is refractory to nearly all the diseases of the capric and equine families. Of course, we have not yet arrived at that point when anything of a definite nature can be positively stated. A most vital corollary to the whole question is the one involved in the question as to whether, conceding a cure has been effected, the cured individual is subject to or capable of being inoculated a second time by leprosy. In other words, does he then become immune to the disease and, if so, is the immunity a permanent one? Of course, this opens up anew the great question of immunity, which will not be touched here.

The writer is fully aware that the entire subject of the treatment of leprosy has been but barely outlined in this paper, but it has been offered in the hope that someone will take it up and elaborate it completely and that it may call some little attention to the question of a cure for leprosy. Now that the American possessions include a number of islands in which leprosy is endemic and cases exist in large numbers, it is certainly the duty of the American medical profession to devote more attention to this disease and to search for a cure with more diligence than it has done heretofore. Those physicians who are located in these possessions have ample opportunities to pursue their studies and make experiments such as are certainly not offered in this country. We perhaps do not hope in vain when we express the one that the opportunities offered will, in time, produce fruit of the highest value to all humanity.

ADDENDUM.

THE TREATMENT OF LEPROSY.

Dr. Razlag of Canton, China, (*American Medicine*, Feb. 7, 1903), says that first of all the baths are of great importance; he uses cold or warm baths of fresh water; also sea baths and medicated baths, with iodine, tannic acid, permanganate of potassium, liq. calcis sulph., just as the condition of the patient requires. As a

sudorific, generally jaborandi, or simply strong coffee or tea. Wounds: Chloride or sulphate of zinc, hydrogen dioxide, ichthyol, chrysarobin, arsenic, tannic acid, tr. ferri chloridi, iodine, ol. gynocardiae odor., zinci oxid., creosote, croton oil, salicylic acid, tr. iodine, soziodol, sodii, zinci and hydrargyri, permanganate of potassium, strychnine, tar, etc. Dressing with plain absorbent cotton, sometimes with xeroform powder, but never iodoform. It is necessary in the treatment of wounds to make some combination of the above mentioned drugs, especially in the use of ointments, for which purpose the author generally prefers lanolin tar or glycerin. For the massage and friction of anesthetic skin, croton oil, strychnine sulphate, chaulmoogra oil, in combination with ol. olive, and sometimes pure mucuna pruriens. The edema can be well reduced by leeches, and he strongly recommends the use of these to a large extent; but great care must be taken how and where to apply them. Internally, liq. pot. arsenitis, or arsenic pills in combination with strychnine and ichthyol; sodii salicyl., ol. jecoris aselli, guaiacol, creosote, and sometimes airol, seem to produce better effects than any other drug. The writer says he is well acquainted with the use of all the other drugs, as oils, ointments and liquids, used externally or internally, but finally comes to the conclusion to keep on the above mentioned treatment. Care must be taken that the wounds heal slowly, as a quick closing of ulcers, etc., produces generally again the appearance of nodules as well as edemas. The patients must expose themselves as much as possible to the air, and be dressed as much only as will cover the body.

It will be necessary to adopt the beginning of the treatment exclusively by method, and nobody should be allowed to try any other treatment on the patients. It is necessary that every doctor shall get acquainted with this method of treatment if he attempts to treat lepers. It is also of great advantage to teach the improved lepers the treatment of wounds and bandaging, as they will thus, by helping the doctor, save a good deal of work. We must remember that no nation or race can be regarded as immune; and, apart from all theories, it is a fact that for everybody infection is dangerous. Hereditary leprosy counts no more than about one-eighth of the lepers; all the rest is a subjectively contracted disease. In the leper

village Fat Fung Yum are 982 lepers, and of these there are only 106 cases of hereditary origin. A hereditary predisposition does not exist, as it is a clear fact that to such an infection a hereditary disposition is an empty theory and nonsense. In spite of what so many authors are writing about it, it is true that predisposition has a good deal to do with every kind of contagion or affection, but in this disease a hereditary predisposition is excluded.

The Danger of Inflammable Combs.—The use of gun cotton in medicine is mainly confined to its utilization as a product of collodion. In the arts it has a far wider range of application, and just now it threatens to become of such universal application that its indiscriminate adoption must demand the attention of persons interested in preventive medicine. It has long been known that dressing combs and other articles of like nature have been manufactured from a modification of gun cotton. From time to time we have pointed out the possibility of accident from the use of an article containing such an ingredient, but comparatively few cases of accident have hitherto been recorded. Now it appears that the original patent having expired, a vast number of imitation processes have sprung up and the public are flooded with combs made from gun cotton compounds by methods which render them more dangerous than those prepared under the original patent. That some restriction should be placed on its indiscriminate use was proved by the recent case of a girl, 22 years of age, who was suffering from cellulitis of the scalp, accompanied by a marked degree of nervous shock. It appeared that her head had been set on fire by the sudden combustion of a comb which she wore in her hair. Cooking her father's dinner one Sunday, she happened to bend down before the fire, when the comb suddenly ignited and she became enveloped in flames. Her life was only spared through the presence of mind of her father, who immediately enveloped her with the hearth rug, and so extinguished the conflagration. Obviously, seeing that the mere storage of gun cotton is restricted by heavy penalties, it is not fair or safe that makers should be permitted to place a slightly modified but actively dangerous modification on the market, to be used by a section of the public who have not the slightest notion of its composition and dangers. — *Med. Press and Circular.*

SYMPOSIUM ON LEPROSY.***A CASE OF TUBERCULAR LEPROSY.**

By J. V. SHOEMAKER, M.D., LL.D., PHILADELPHIA, PA.

A man, 48 years of age, was admitted to the Dermatological Wards of the Medico-Chirurgical Hospital in the latter part of January, 1902. The patient was a native of Russia, who had lived continuously in this country for about eight years. He was a shoemaker by occupation, of robust build, enjoyed good health, and had been exempt from any disease of the skin until nearly two years previously when, in the early autumn, business obliged him to travel by boat on a cold night from Louisville to Cincinnati. In the latter city he was lodged in the house of a friend. By the next morning there was a decided change in the weather and the day was quite warm. He is totally ignorant of any intelligible cause of his affliction, but seemed to connect the night's journey and fluctuation of temperature with the disease which soon made its appearance upon his skin. When he left home he was entirely free from any manifestation of the kind. In a few days, however, he observed some very small papules upon the back of each hand. They neither itched nor pained. After a lapse of two or three months similar lesions appeared upon the face. They next developed upon the back and breast, and subsequently upon the arms. The lower limbs have been comparatively spared, although upon the front and back of the thighs there was quite a large number of lesions identical in character with those upon the other parts. Some lesions existed upon the scalp. The mucous membranes of the nose and throat were unaffected. The patient had not lost much strength. The tongue was comparatively clean and the appetite was unimpaired. He did not think that his digestive capacity had lessened and he slept well at night. There was partial anesthesia of the surface. The man had at times suffered from muscular pains. Toward the end of 1900 he had a febrile attack of indeterminate nature.

The man's face was covered with tubercles of a pinkish color and moderate consistency, varying from the size of a pea to that of a cherry. Upon the scalp they were of still larger size. They were closely packed together upon the forehead. They

*Held at the Philadelphia County Medical Society Jan. 14, 1903.

were numerous, though somewhat less abundant, upon the sides of the nose, upon the cheeks and chin. They exhibited a decidedly glistening appearance. There were a few fissures between adjacent tubercles, but there was no discharge of pus or other pathological product. There was no disease of the eyes. The rugous forehead and overhanging brows communicated a strange, weird and so-called leonine aspect to the countenance. Upon the breast were a number of small, pedunculated tumors. Around the elbows a slow process of degeneration was going on, the tubercles breaking down into pus.

As regards the diagnosis, syphilis could at once be excluded. The tubercles of that disease are of a deeper hue, smaller in size, far less numerous and generally restricted to a few regions of the surface, being comparatively seldom observed upon the extremities. Syphilitic tubercles are apt to arrange themselves in clusters and, by their confluence, to form curvilinear, circular or semicircular outlines. They are devoid of the glistening aspect so noticeable in this case. In the progress of two years and in the absence of specific treatment, extensive serpiginous ulceration would have inevitably occurred. The lesions of the present case had, in every particular except size, been unchanged from the first and had been totally destitute of that polymorphism which is so characteristic of syphilis.

The history and aspect of this case by no means coincides with that of lupus vulgaris. That affection usually begins in youth, its tubercles are of a brownish-red color, of a gelatinous consistence and not so large as many of those that existed upon the body of the patient whose history I have related. They are far less abundant in lupus and are, as a rule, confined to the face. In lupus, moreover, we generally witness several stages of the disease present at one and the same time. Around the ulcer which is due to the degeneration of the neoplastic tissue we can detect papules or tubercles in the course of development, while adjacent spots of atrophy and cicatrization speak of the occurrence of absorption or the repair of former ulcers.

A disease which, in one of its stages, bears a close resemblance to that which forms the subject of this paper is mycosis fungoides. This patient, indeed, was sent to me with that diagnosis and his case had been so reported in one of the journals. In mycosis fungoides, however, the tumors have usually been

preceded by patches of erythema, or by eruptions which may simulate either urticaria or eczema. These eruptions are at first evanescent; they appear and disappear. In the course of time these manifestations take upon themselves the form of rose-colored, slightly elevated patches, somewhat scaly and generally the seat of itching. This is known as the eczematiform period of mycosis fungoides. Nothing in the history of my patient corresponded to such a description. In the progress of events the deeper portions of the integument are involved and edematous; infiltrations arise, either upon the site of eczematiform patches or upon previously unaffected areas. This marks the second phase of the disease. The final stage is characterized by the formation of tumors. Adjacent growths may coalesce and produce large, projecting masses, generally of a bright red color, but sometimes dark red, and in rare instances of a yellowish shade. The tumors are capable of being absorbed in one region without cicatrization, while others may develop in new situations. The different stages may coexist on different parts of the body. Finally, the tumors ulcerate, the patient falls into a cachectic condition and death closes the scene.

Cases of multiple sarcoma cutis have occasionally been reported. Such may at a certain epoch present a likeness to the case now under consideration, but are not attended by anesthesia and do not exhibit such a lingering course. Some of the cases formerly described under this title have probably been examples of mycosis fungoides.

From the clinical traits of the present case, its slow progress and the anesthesia, I was led to the conclusion that it could be no other than one of tubercular leprosy.

Fortunately, we are in possession of an infallible diagnostic criterion. An examination of the diseased tissue and of the blood is capable of establishing a positive and absolute diagnosis. Such a study confirmed the opinion founded upon general grounds and by the process of exclusion. *Lepra bacilli* were readily seen in the protoplasm of the leukocytes and also free in the plasma in rather large numbers. The micro-organisms were everywhere present in sections from the tubercles. The proportion of hemoglobin was reduced to 65 per cent.

Leprosy is distinguished by extreme tardiness and variability, both as regards its stage of incubation and its duration. It is thought that from three to five years represents the average time which intervenes between exposure and the outbreak of decided symptoms. This period has, however, been greatly lengthened in certain authentic cases. In some instances eight, ten and even a longer term of years has passed after exposure before any evidence of leprosy made its appearance. During this long interval symptoms may occur which experience in tropical and other places in which the disease prevails has connected with the latent taint. These symptoms are of such a general nature that their significance will often be unperceived or unrecognized in those lands in which leprosy is a rare visitor. There may be, for instance, evanescent attacks of fever, disorder of the alimentary system, headache, neuralgia, malaise, nervous depression, pains in the limbs, spongy gums, enlargement of the lobes of the ears, anesthesia of the tip of the little finger, etc. One feature of this stage, which may be regarded as suggestive of coming events, is the occurrence upon the body of bullæ, which, however are of no long duration.

Leprosy exists in three types, according to the predominant lesion or symptom. We recognize tubercular leprosy, anesthetic leprosy and macular leprosy. The classification is rather one of convenience for descriptive purposes than of actual verity, for in most cases we can observe at some period or other both macules and tubercles simultaneously present. A case may begin with macular lesions and tubercles may subsequently develop or the process may be reversed. Another case may exhibit the indefinite prodromal symptoms to which I have alluded, including bullæ, followed by hyperesthesia, which is sometimes extreme, but which eventually disappears and is succeeded by anesthesia. The surface may long remain free from any gross lesion, but finally macules or tubercles, or both, will occur. Anesthesia, more or less profound, is a concomitant of the macular forms of leprosy and has, in fact, a diagnostic importance.

In the case which forms the subject of this paper, the lesions were all of the tubercular form, while in one which came to my Dermatological Clinic several years ago the macule was the prevalent type.

In truth, the tubercular variety is preceded by the presence of scattered macules, which may be large or small, of irregular outline, from pale to dark, brownish-red in hue, smooth and of glistening aspect. The tubercles may arise upon these spots or they may spring from parts of the surface which, apparently, had previously been unaffected. Prior to the occurrence of tubercles other eruptions may be witnessed. Thus, lesions like those of erythema nodosum may be observed not infrequently and a redness similar to that of erysipelas may occupy some part of the surface. There may also be swelling of the limbs and joints. The tubercles of leprosy are round or oval in shape, range from the size of a pea to that of a walnut, are generally of a dark red color and painful upon pressure. They occur upon nearly all parts of the body, but exhibit a predilection for the forehead and other parts of the face. The rough and thickened skin communicates a strange, pathetic or, in some instances, sullen expression to the face. The hands and feet become distorted. The hair and nails fall. The tubercles remain for a long time without alteration. During this period, which may last for years, the general health and mental faculties are unimpaired, as was exemplified in the case under consideration. Eventually, however, ulceration takes place. The ulcers in turn may remain superficial for a long time, but at last they penetrate deeply and cause spontaneous amputation of the fingers and toes or even of the hands and feet. This eventually is known as *lepra mutilans*. The mucous membranes of the throat and nose may become the seat of tubercles and the different layers of the eye may be involved, leading to total blindness. Necrosis of the nasal bones may occur. Toward the end of this long and grievous affliction the patient becomes listless and apathetic, loses appetite and perishes from inanition or the occurrence of some complication. In some instances, after having long been present, tubercles disappear and the symptoms become those of the anesthetic form of the disease. The most common, serious or fatal complications of leprosy are diseases of the lungs, heart and kidneys.

The pathological alterations of all varieties of leprosy are identical. There is at first an infiltration of small round cells into the corium, subsequently invading subcutaneous tissues, and, through the medium of blood-vessels and lymphatics,

being transported to internal organs and structures. According to the extent of the infiltration macules or tubercles may be produced. In anesthetic leprosy the nervous system especially is the seat of the infiltration.

An examination of the manner in which leprosy has gained foothold and spread throughout different countries, regions and communities scarcely leaves a doubt as to its contagious character, although of the precise agencies by which it is transmitted we are still in ignorance. That it is not so actively contagious as the exanthems must be admitted. The preponderance of evidence also shows, I believe, that heredity plays some part in the propagation of the disease.

THE LEPRA BACILLUS IN THE CIRCULATING BLOOD.

BY L. NAPOLEON BOSTON, M.D., OF PHILADELPHIA, PA.

Through the courtesy of Dr. John V. Shoemaker I was privileged to study the blood from the case of leprosy, then under his care, which displayed certain of the rarer changes known to be associated with this disease.

February 8, 1902, an examination of the blood showed hemoglobin, 65 per cent; red cells, 3,460,000; white cells, 6,800. The blood was withdrawn from the finger, and the incision made was not of unusual depth; yet the bleeding was comparatively profuse, giving some annoyance to the patient. Slides smeared with the blood were fixed by heat, and stained by carbol fuchsin and Gabbett's blue; saturated aqueous solution of fuchsin, without heat; eosin and hematoxylin; and Ehrlich's triple mixture, all of which were found to give satisfactory results. The erythrocytes were noticed to be deficient in color; staining feebly, as a rule, yet many of the smaller of these cells often stained deeply. Decided variability in the size and form of the erythrocytes was displayed. Of these macrocytes were predominant; yet microcytes and crenated cells were not uncommon, and the average size of the erythrocytes appeared to be above normal.

Nucleated Red Cells.—In the counting of 200 leukocytes, forty nucleated red cells were found, and of these thirty were normoblasts, ten megaloblasts; and many of the latter variety showed well-marked polychromatophylic properties.

A differential leukocyte count gave polymorphonuclear cells, 60.2 per cent. ; transitionals, 13.9 per cent. ; eosinophiles, 8.7 per cent. ; small lymphocytes, 4.3 per cent. ; large lymphocytes, 9.5 per cent. ; large mononuclears, 3.4 per cent.

The leukocyte count which was 6,800 agrees with Brown's¹ study of sixteen cases, none of which showed decided leukocytes ; and also, with Winiarski's² observations on seventeen cases which showed these cells to be normal or subnormal in number. The latter-named observer found an increase in the lymphocytes to a maximum of 47 per cent. ; but lymphocytosis was not observed in connection with suppuration.

The findings in this case differ widely, in that the lymphocytes equal only 14.8 per cent. ; while there was a decided increase in the number of transitional cells to 13.9 per cent.

Eosinophilia was present to a degree of 8.7 per cent., all of which cells were of the polynuclear variety. The literature appears to be silent as to the existence of eosinophilia in this disease.

Bacilli in Circulating Blood.—Blood drawn from a rather deep incision through the normal skin of the finger, was prepared in the usual manner, fixed by heat, and then stained for the "bacillus lepra." Such specimen smears contained few leukocytes in the protoplasm of which lepra bacilli were readily seen. The smaller number of bacilli observed in a leukocyte being two and the greater number eight. These findings conform with those of Streker,³ and of Brown ; the former of whom found leukocytes containing bacilli in all of five cases examined, while the latter studied sixteen cases, nine of which showed lepra bacilli in the polynuclear leukocytes.

In my case bacilli were also found free in the plasma, in rather large numbers, and these always appeared singly, or at most, two or three organisms in a single field. Streker reports having found extra cellular bacilli in the blood from all of his cases. The presence of great numbers of lepra bacilli in the spleen has been shown by Joseph,⁴ Schamberg⁵ and others, and would appear to be in direct accord with the finding of these bacilli in the circulation.

Polycythemia has been recorded by the various observers, and often ascribed to local stasis. Winiarski has also found the red cells to be reduced to 1,900,000 per cmm. in the

advanced stage of this disease. The hemoglobin is likely to suffer less destruction than the red cells; yet it, too, may show decided reduction, as is shown by my case (65 per cent.) At times, in the advanced forms of leprosy, the blood changes may resemble in a measure, at least, those of pernicious anemia.

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OBSERVATIONS UPON LEPROSY OCCURRING IN JAPAN,
ICELAND AND NORWAY.

BY JUDSON DALAND, M.D., OF PHILADELPHIA, PA.

JAPAN.

All the islands of Japan are infected with leprosy, excepting Yezo, which is the northernmost island, the inhabitants of which are supposed to be aborigines, and are quite isolated from the rest of the empire. The official report states that there are ten thousand cases of leprosy in Japan, but Baelz believes that there are from thirty to fifty thousand, and Souton¹ estimates the number to be 23,660. The disease is considered to be contagious by most of the inhabitants as well as by physicians; the marriage of lepers is prohibited, and leprous wet-nurses are not permitted to suckle healthy babes. The disease especially affects the peasants, although many cases occur among the wealthy. The mucous membrane of the upper air passages is much less frequently attacked by the disease than in other countries. In Tokyo there are two private leper hospitals containing from fifty to eighty beds. During the past fifty years there has been a hospital for lepers containing 150 beds at Gotemba at the foot of Fujiyama. Dohi² has observed 300 cases of leprosy in two years, and believes that this malady was more prevalent and more virulent in the earlier centuries. His youngest patient was five years of age, but the patient's brother, aged one year, showed no sign of leprosy. He believes that the incubative period is from three to ten years.

As perspiration does not occur in the area of the skin involved in leprosy, Dr. Baelz³, whom I met in Tokyo in August,

1902, has devised an ingenious method for outlining the parts affected, by rubbing aniline over the suspected area, and then injecting pilocarpine. The sweat thus produced dissolves the aniline, and thus stains and outlines the area of normal skin, while the abnormal skin remains unstained. He believes that the disease is but feebly contagious, and has never observed a single example of the transmission of the disease despite the fact that leprous patients were in the wards of the general hospital for six years. The most dangerous cases are those presenting suppurating surfaces, and it is now well known that the nasal secretions are even more dangerous. He believes that certain cases spontaneously recover and that others are influenced by a treatment which consists in rubbing the diseased area of the skin with pumice stone until blood appears, and then applying a 20 per cent. salicylic acid, lanoline, vaseline ointment. As much as a square foot of the skin surface may be so treated without producing symptoms of salicylic acid poisoning. This treatment alone is sometimes successful in relieving mild cases of macular leprosy.

Three half-grain capsules of oleum gynocardiae are to be taken thrice daily after meals. Every fourth day an additional capsule is given after each meal until ten capsules are taken thrice daily. This treatment should be continued for not less than one year. He recommends bathing in the hot Kausatsu Spring water, which contains a large proportion of sulphuric and hydrochloric acids, and has a temperature of 45° C. (113° F.) or 53° C. (127° F.). At first three and later five baths are given daily; the average for one month should be 130 baths. The duration of the bath is usually three minutes. Before entering the bath hot water is thrown over the head one hundred times to prevent anemia of the brain, which otherwise would occur in submerging the body in so hot a bath. The patient suffers not only from excessive heat but also pain from the contact of the acid with the diseased skin. After the bath the skin is of a very bright scarlet hue. Within a week, and sometimes later, a rose-colored, acne-like, pustular eruption appears all over the skin surface. The baths are continued, otherwise the eruption may remain for months. In three, four or five weeks, the eruption begins to dry, and then the cure is supposed to begin. The skin is extremely sensitive and pain-

ful and furuncles and abscesses appear. The patient is bathed for four or five days in a mild alkaline water and the pain quickly disappears. At this stage of the treatment the patient's appearance resembles scabies, and in another month this appearance also disappears. The general condition of the patient is greatly improved and the appetite is good. He believes this bath to be of very great value. The following is the analysis of the Kausatsu Spring:

Ferrous sulphate.....	0.2280	parts per 1000	13.3	grains per U. S. gal.
Aluminium sulphate.....	1.1800	" " "	69.8	" " " "
Calcium sulphate.....	0.2550	" " "	14.9	" " " "
Magnesium sulphate.....	0.1199	" " "	7.0	" " " "
Sodium sulphate } Potassium sulphate }	0.3200	" " "	18.7	" " " "
Calcium acid phosphate.	Not determined.			
Free sulphuric acid.....	1.3390	parts per 1000	78.1	" " " "
Free hydrochl. acid.....	0.8532	parts per 1000	47.8	grains per U. S. gal.
Organic substances:	Traces.			

4.3953

256.3

ICELAND.

Iceland, with an area about that of Kentucky, has a population of seventy thousand, and it is believed that among them there are 200 lepers. Upon arriving at Reykjavik, the principal city, in July, 1896, through the courtesy of Dr. Guomundur Magnusson, I was permitted to examine two cases of leprosy occurring in adult males, presenting the ordinary appearances found in well-developed examples of the mixed variety. Upon visiting a third case, we found that death had occurred the day previous, and our request for an autopsy was refused, as was also permission to examine the body. This family, in common with most of the inhabitants of this island, was strongly of the opinion that leprosy is noncontagious. The widow of the diseased maintained this view most vigorously, and insisted that she was in excellent health. After considerable persuasion she permitted an examination, which revealed that she was suffering from leprosy the lesions of which were of the tubercular variety, chiefly affecting the face. I incline to the opinion that this was an example of the contagiousness of the disease. The inhabitants of Reykjavik and the surrounding country, when employing laborers in the field or

about the farmhouse do not discriminate against the leper, who is considered as valuable and as desirable as though free from this disease.

There were no hospitals for lepers, and most of these unfortunates received neither care nor treatment. In the absence of hospitals and registration, it is impossible to obtain accurate information regarding the number of cases of this disease in this community. 1899, Ehler⁴ found 144 cases of leprosy, while the official report showed but 47, and in 1895 he discovered 15 new cases. It is difficult to conceive of climatic, hygienic and dietetic conditions more inimical to health than those that exist in Iceland. Schleisner⁵ has aptly compared the bad hygienic conditions usually found in Iceland to those so prevalent in Europe during the Middle Ages. Despite the long, dark arctic winters, short summers, and the high winds, fog, rain and cold during the periods corresponding to our spring and fall, the Icelander is not only contented, but is most patriotic and seldom emigrates. Some of the houses in Reykjavik are well built and sanitary, but most of the inhabitants of this island live in damp huts, the walls of which contain but few windows, which are remarkably small. The interior, therefore, is dark and ventilation imperfect. This form of construction is followed so as to better retain the heat during the severe, protracted cold of winter. The food is exceedingly limited in variety; bread is a rarity, and fish is the chief article of nourishment.

Leprosy was probably brought to Iceland from Norway at the end of the twelfth century, and in the sixteenth century this disease was firmly established and wide spread. In May, 1561, the disease was so prevalent that four leper hospitals were erected, one in each quarter of Iceland. In August, 1848, these hospitals were abolished. In 1707 an epidemic of small-pox destroyed one-third of the population and most of the lepers. In 1768, 280 lepers existed in Iceland, according to Peterson. The passage of a law forbidding the marriage of lepers was followed by a great decrease in the number of cases of leprosy. In 1845 an epidemic of measles caused the death of many lepers, but thirty-six surviving. In 1869 the number of lepers was forty-eight. In 1880 the number was forty-seven, and in 1894-95 the number was 158. In ninety-one cases

occurring in males, forty-one were of the tubercular, twenty-one of the mixed, and twenty-nine of the anesthetic variety. Of the sixty-seven females observed, thirty-two were of the tubercular, twelve of the mixed, and twenty-three of the anesthetic variety. Fifty-six lepers gave histories of disease in the family, and sixty-three denied its occurrence in any of their relations. Sixteen of the non-hereditary cases of leprosy were probably due to contagion, four of which were probably acquired through the marital relation. In forty-three of the sixty-three cases contagion was possible, but could not be demonstrated. These statistics show that heredity plays an etiological rôle. that the tubercular variety is most common, and that more females are afflicted than in India, where the proportion is one female to four males. It is rather surprising that the number of cases of leprosy giving a history of the disease occurring in the family is not larger, in view of the stability of the population and their ability to give accurate information upon this subject as far as the sixth or seventh generation. Despite the non-separation of lepers from the community, the opinion is entertained that the disease is slowly diminishing, but in view of the impossibility of obtaining accurate information regarding the number of cases existing in Iceland, not only in the past, but also at present, this opinion should carry no weight. In 1896 Ehler states that the Norwegian law relating to lepers would shortly be enforced in Iceland, and in July, 1898, the first leper asylum would be opened.

NORWAY.

In 1896 I visited the leper hospital in Bergen, at which time the number of cases in the hospital was in the neighborhood of 460, among which one could see examples of the different varieties of leprosy that have been described. This hospital was admirably arranged, and the patients received the best of medical care and attention. The physicians in charge were men of unusual ability, thoroughly interested in their work, which they prosecuted with zeal and energy. This institution possesses a thoroughly equipped bacteriological laboratory, and the physician in charge was remarkably well trained for this work. The fullest advantages were taken of the presence of the bacillus lepræ in the diseased tissues and

secretions as an aid to diagnosis. Much uncertainty existed in the minds of the Norwegian physicians regarding the contagiousness of leprosy in 1896, but at the present time the majority, although by no means all, believe that leprosy is contagious. The most important additions to the scientific knowledge of this subject have been made by the physicians attached to the leper hospitals at Bergen, Molde and Trondhjem. The work of Hansen of Bergen, the discoverer of the lepra bacillus and the greatest authority upon this disease, is well known, as are also the labors of Kaurin of Molde, and Danielssen.

Norway is the only European country in which leprosy is endemic, but owing to the enforcement of segregation this disease is rapidly disappearing. In 1897 there were probably not more than 700 cases; whereas in 1856 there were 2,833 cases. It is believed that 90 per cent of the Norwegian cases give a family history of the disease, and the statistics show that 1 per cent of the cases are under ten years, and 66 per cent are from 20 to 25 years of age. Both sexes suffer about equally from leprosy, whereas in other countries the majority of those afflicted are males. In 1882, 107 cases of leprosy were reported cured during twenty-five years, thirty-two of which were not treated in hospitals.

Hansen believes that the habit of two or more sleeping in a bed, which is quite general among the peasants, is largely responsible for the spread of leprosy in Norway. He thinks that the bacillus may enter the body through wounds in the skin, and that leprosy may be spread by infected clothing. Ehler states that similar conditions prevail in Iceland. Arning of Hamburg believes that the bacillus enters by wounds, and states that in tropical countries, where the people go unshod, the disease is apt to appear in the feet; whereas Ehler states that in Iceland the face and hands are most frequently affected, as the remaining portions of the body are usually carefully protected from wounds by clothing necessitated by a cold climate.

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SOLILOQUY OF THE LEPER.**Walking in the Shadow of a Fate Worse Than Death.***

BY ALBERT S. ASHMEAD, M.D., OF NEW YORK.

In every case of leprosy the first thing which strikes the patient and the physician is the disturbance of the nervous system ; feelings of heaviness, of weakness, of lassitude, trophic lesions, vasomotor perturbances, etc., begin the performance. As determining cause we generally have a cold after which the picture of the leper begins to sketch, to delineate itself. What a delineation ! *Rey de los espantos* (King of Terrors) as Dr. Ricardo de la Parra, of Colombia, himself a leper, called it ; terrible anathema, which in the law of Moses, and under the legislation of the Middle Ages, condemned the miserable leper to the most horrible ostracism ; cancer of the families and of society, a thousand times more painful and more loathsome than the pestilence of Egypt, the cholera of India, and the Vomito Negro ; only to be compared with the penalty of death, but death chronic, by slow marches, which comes only when the poor wretch has drained the most bitter chalices, and endured the most cruel moral tortures !

From the Delaware Co., Pa., News, April 5, 18—.

John Anderson, the Cross-roads leper arrived by the ten o'clock train yesterday morning. The crowd at the railway station was beyond anything the oldest inhabitant could recollect. The prisoner was received with the discordant yells of a furious multitude, "Hang him ! Hang him ?" was shouted by innumerable voices, and, in spite of the possible profaneness of such an association, we could not help thinking of the "Crucify him !" with which another prisoner was greeted nearly nineteen centuries ago. The poor wretch was hurriedly pushed into a closed carriage, surrounded by a powerful posse. For a minute or two it was feared lest the rabble should make a rush upon the prisoner and his escort. But the posse, as already stated was strong, composed of men who have no sympathy with license and whose courage and determination are well known ; it has been ascertained wherever occasion served, that these later qualities are apt to make a

*We begin to-day the publication of a remarkable paper contributed to the *Columbian*, by Dr. Albert S. Ashmead, of New York, "The Soliloquy of a Leper." It is the soul story of a man condemned to a living death and no piece of fiction could be of more entrancing interest.—*Catholic Columbian*, Columbus, Ohio, March 24, 1900.

strong impression on the worshipful mob. So a few stones thrown from a safe distance was all the assault amounted to.

As to the prisoner he is by no means what the object of such a hue and cry would be at all supposed to be. He is a very symmetrically built man of thirty, slender, but wiry, with chestnut-brown hair, and dark blue eyes. Whether the hue of blood ever breaks through his epidermis, we do not know, it did not just then. He was well dressed, and the expression of his face bespoke intelligence, and, strange to say, culture. He looked at the crowd as if he was not prepared for this hostile reception. Clearly he had not expected this. Yet there was nothing abject in his terror. He certainly seemed the most interesting criminal that ever it fell to the lot of a reporter to portray. There is a red-haired (and rather fine), German Fraulein, in Piloty's *Triumph of Germanicus*, who turns round at the howlings of a black Italian slut and stares at that contemptible foe, somewhat in the way (*mutatis mutandis*), the poor wretch looked at the threatening bobtail. As the man is not convicted yet, we will let him have the benefit of what good there is at least in his appearance.

From the Journal of the Imprisoned Leper, April 7, 18—.

I should like to make light of the strange adventure of which I am the suffering hero, and laugh at the absurd blunder of all these people, if I could. But, though it is all a mistake, I can not see that it is a joke. I am simply and unspeakably frightened, horrified. In spite of all my efforts to remain myself, and to appear to my own eyes as I am, I can not help looking at myself in the light in which I am seen by others. I feel in my soul the poison that must fill the body of a leper. My imagination has run mad, and produces nothing but spectres. Of course they will find out their mistake, of course they will soon let me go; but meanwhile I am not only in their hands, I am in the power of my own diseased senses. The consciousness of being loved by some, esteemed by all, was a vital element in which my soul breathed and lived; the frenzy against which I am struggling now with all my might, is like a moral choking, like spasms of suffocation.

Have I been for years the victim of an insane illusion, which showed me the world as a kind, sweet, peaceful place, ruled and cherished by the motherly care of Providence? Was

this heavenly feeling carefully nurtured by some devilish operation, for the sake of creating a power of suffering proportionate to its sweetness? Was I, like a victim, fattened and decked out for sacrifice?

I know that these ravings are unreasonable; but the knowledge does not help me to master them. I will try to direct my thoughts into a quiet channel. Would prayer be of use? There is as little prayer in me as there is sunlight in the grave. I am innocent, and the devilry that grins everywhere in my face, is bound to vanish; but never, I feel it, will the taste of Hell entirely leave me. Hell! that is the word! And they say that Hell is eternal! As if what I have gone through was not sufficient to expiate a whole poor human life full of iniquities!

Vicissitudes of human destiny! How little meaning these words had for me, whose life had always run smoothly, without, at least, any appalling check! I used to think that a sensible man should be able to bear anything human, and that a Christian never could be moved by any change in the world, which is only an infinitesimal part of his destiny.

I can see now that there is little difference between a Christianity like mine and any perfunctory worship of an unknown God! My Christianity was too poor an armor to be worn in battle. It is in peace that war must be prepared; it is when life requires nothing of us but the usual performances of slight, every-day efforts that we must get ready for more difficult exertions and greater strains. I have done nothing of the kind. I never had any moral or religious *capital* engaged in that great or paltry business of life. My business, what there was of it, was done with fictitious means. I have lost, cash is wanted—and I am a bankrupt.

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It was a happy inspiration, this writing of my impressions. I am much calmer, and I feel even equal to a smile at the remembrance of the chubby, little Roman philosopher's words: "Let this be a wall of brass to you; to be conscious of no trespass, to have to pale at the thought of no past guilt." I am surrounded with that adamant wall, and if I am pale it is not guilt that makes me so. But alas! it seems to me as if the fortification was made of paste board, though it may have met

the wants of those living abstractions, the rich, free, healthy, handsome philosophers of old, who were the Kings of Kings and had no superior but Jove himself.

Ought not, after all, the knowledge that this nightmare must be transient, to have inspired me with a little more fortitude? Surely after the poor results of the present test, the metal I am made of must be considered below the average! Yet I can evolve out of my thoughts a criminal who would bear up against such a squall much more creditably than an innocent man, simply because, in some indefinite manner, he was almost prepared for it. An unrecognized, yet quite real sense of the fitness of things would promptly lead him to resignation. Besides, what am I talking about? The nerves of a man who has been declared a leper cannot be so delicate!

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I have derived a great deal of relief from two sources. The first is the thought of my sister whom I have always loved with passionate devotion. Dearest Lillian! a hackneyed comparison alone can express the relation in which my thinking mind and my feeling soul have ever stood to your great and sweet nature; you are the trunk around which, like ivy, all my being has twined and fed. Your image, obliterated for a moment, stands again before me. I suppose there must be some equilibrium in nature. The horrors which have burst upon me have nothing excessive if your goodness is considered as their set off.

I found another source of consolation in the visit of my doctor. From him I learned everything that had remained dark to me, and I put him in possession of my facts. Thus, the distemper outgrew rapidly its acute stage and is settling down apace. To be listened to with, at least, apparent confidence and undoubted kindness by any man, though it be rather the profession than the man that smiles upon me, is as delicious as the inhaling of sea-breezes to a creature just emerged from some black hole. I don't know, and for the present don't care, whether his belief is quite sincere; the appearance is an invaluable boon in itself.

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I do not like to dwell upon the circumstances of my fate; the idea of being suspected of such is appalling. No wonder they look at me as if I was a wild beast. But if the soul is

immortal why do not those buried bones of my sainted mother interfere in this miserable business? Can they rest in their grave while the fiends indirectly slay another victim? If there is something above mechanical laws, a mind beyond gravitation, a holy will—in short, why does all nature remain so stupidly quiet when the innocent is threatened with a doom worse than a murderer's? Why does not that holy power drag my mother's supine bones out of their grave to make them help me?

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That was not much like the cheerful calm I hoped to have attained. Here am I complaining because Providence is not theatrical enough in its ways to my taste. I must not give way in future to this childish impatience. Even if there are dark places in creation, let my soul patient, resigned, in complaining be a bright spot in it.

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My own forces have at last appeared in the field—men and women with whom I have lived, worked, laughed and sometimes mourned, for so many years. They have come to acknowledge me—to claim me as their own. What a sweet feeling of thankfulness and new-born courage filled my heart at the sight of those dear friends who had come to far, at great inconvenience most of them, to help a friend in distress! Flowers must have such a feeling when, after a long drouth, the dews of heaven stream through all their pores and revive their parched tissues. I shall not name them here. I want these tablets to be concise. They shall be a pocket-monument to be inspected now and then through life when the mood comes upon me—when the phantoms of the past knock for admission. A monument of feelings, not of men. I shall put down the name of none of you, but you will stand before my eyes every time when in the future they shall rest on these pages.

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I hope I shall see less of that unanimous crew who put me here. The intense suffering their sight alone has caused me is not to be described. I remember every one of those men and the way he looked when, for the first time, he set on me those ferocious eyes, already preparing fiercely for the work of identification. I had then a vague perception of something extraordinary and dangerous in that stare. I was never accused of

breaking any law of my country and, by a singular chance, I never was in a court of justice and never had the slightest dealings with the police. A more primeval innocence can hardly be conceived. But here was something which, in spite of my inexperience, filled my soul with trembling alarm. I stood aghast, as in the presence of an awful yet indefinable danger. People seemed to gaze at me in a spectral, fantastical way. When for the first time this struck me I ran to a looking glass and was disappointed in finding nothing in my appearance to explain the attention I was attracting. I saw myself surrounded with eyeballs riveted on me as by magical incantation—they could not leave me—they hedged me in. Sometimes a man, without removing his eyes from me, would whisper something in the ear of his neighbor, who forthwith would concentrate all his powers of observation in his stare at me. A thousand things, insignificant in themselves, suddenly seemed to make a mad attempt at frightful significance. There was going on around me a kind of diabolical concert, consisting of motions, looks, whispers; and I was the keynote. It was terrible, agonizing, loathesome. But why should I try to describe this state of almost intolerable suffering? I can never convey an adequate idea of it, and besides these lines will hardly be seen by other eyes than mine. To make it short, everything in the air I breathed seemed loaded with a kind of moral electricity, and when at last a man with policial features slapped me on the shoulder and bade me follow him, I knew that the thunderbolt had fallen or was going to fall, though the mystery was as dark as ever. I am ashamed to confess to myself that it was high time something real happened, for I was fast getting hysterical.

Strange that now when I have at least that comparative quiet of mind which results from a well-defined, ascertained position, I cannot help recurring to that gruesome experience. Ten years ago, having exposed myself with that reckless confidence very healthy people are apt to have as to their own invulnerability, I got a slight touch of small-pox. I had forgotten the danger to which I was supposed to have exposed myself, and did not perceive any connection between my escapade and the extraordinary feelings, strange terrors, which night after night haunted my dreams. I spoke in my sleep, my head was burning, terrible shapes and adventures made my

nights hideous. But in the morning, still tired in consequence of those feverish labors, I knew not what they meant, until some small red spots, which I discovered by chance on my arms, threw unexpected light on the situation. I have mused many a time over the strange resemblance I perceive between that incubation of a mortal disease and the blind agony of wonder and suspense which preceded my arrest.

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Once my life was like a stream flowing quietly to the sea between flowering banks. Now it hurries along in its mad course amid shattered rocks, uprooted trees, flocks and houses. While mountain and forest echoes reverberate its roaring. This rather strong comparison belongs to my favorite poet, Horace, who never was "in such a fix," as I am in—nay, not even at Philippi. But here I am, trying to beguile the creeping hours with classical recollections, instead of grasping with both hands, the Rock of Ages which stands above gloom and despair.

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Of my early youth I have a strange and delicious remembrance, if I may call it so, of the nature of which I cannot hope to convey any idea to those who have not had a similar experience; and who has? Judge by yourself, O descendant of mine, whoever you may be into whose hands these tablets may possibly fall!

I lost my parents at a tender age, and my only sister, who was a few years older than myself, fulfilled all the duties and lavished upon me all the love of a mother while yet a child herself. I showed even in my childhood a happily tempered mind, which never undervalued the gifts of heaven, and knew how to enjoy everything according to its nature. The little society in which I grew up was like a rich soil. There were many good people in our little village, and many merry people, and some wise people, and my receptive mind neglected none of the blessings which each of these classes were able to confer. And what a fine frame nature had given to my young life! Hills, almost rising to the dignity of mountains, capriciously shifting valleys, chattering brooks, and each of those natural categories was abundantly provided with all the excellences belonging to it. There I lived as happy as any bird lives in

the lavish season of the year, and I do not know whether in the course of a life which, until a short while ago, has been singularly happy, I ever had a moment superior to those delightful days of childhood.

Our parents had left us a modest fortune. An old uncle, our guardian, received us as members of his family, and when his wife died, a few years later, my sister Lillian felt old enough to assume the responsibilities of a mother in regard to me. I was exceedingly fond of her, and what would have seemed to another child arduous mental toil (for, being young, she had a most exalted ideal) was child's play to me when I only thought that my progress would gladden her heart. Whatever I did, all my thoughts, efforts, ambitions, bore the stamp of my love for Lillian. I was diligent and attentive in school to please that adored little piece of pseudo-maternity, and the store of knowledge I laid by did her infinite credit. Even judging with a European standard, I can say that I am tolerably proficient in the classics. The burning zeal of my omnipotent mistress, acting on such inflammable material, produced a Spanish, French and German scholar; so that at eighteen, I was thought worthy by a large commercial house of the post of its foreign correspondent. I was just beginning to gain a good hold of my profession when the war broke out. My sister did not try to persuade me from fighting for the Union. If she had made such an attempt, I cannot guess what would have been the result. The nearest place where enlistments were being made was a distance of twenty miles, and there I spent the last days of the first half of my life of which there remains memory or written narrative. What a fond fool of nature, a regular mother's child of that great parent, I must have been at that time! This little town, though not very far from my own, was utterly strange to me; and, escaping for a while from the gloomy shadow of coming events, I yielded to the peculiar charm of the scenery which surrounded it. Leaving material pursuits in abeyance, I tramped about for a couple of weeks o'er hill and dale. It may be my last chance, thought I; these ditties (how many I seem to have known!) may be the final performance of the swan. When I have done with this I shall find the drum beating; let us batten the soul with song and enthusiasm before resigning this pleasing anxious being! Hanni-

bal is not at the gates. Such are the sentiments expressed in the chequered language of facile metaphor in the letters to my sister, which I re-read in circumstances so difficult, yet hardly less delightful.

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I have arrived now at the moment of my life on which the shadows lie deepest; there is no monument, no witness, of what passed in it.

Crushed in mind, in tearless agony, I heard the doctor's verdict.

My sister made the most of it. Sitting by the sofa where my listless length was stretched so many days after the awful truth came upon me, walking with me in our garden, where flowers were so thickly spread they seemed to have come down in a shower from heaven, roaming with me through the woods, paddling over the rivers, she was forever smiling, laughing, singing, talking to me, unweariedly, like a mountain spring, whose gentle bubbling never ceases nor weakens.

The *tohu-bohu* of my wrecked being answered gladly to the call of that spirit floating over the waters. As my mind, by degrees, gently awoke from the darkness which enveloped it, she fed it with memories of that delightful past of which the battered soul had lost its share. She filled the staring and at last smiling cadaver with her feelings. My mind became as strong as it had ever been. I had suffered much—for what purpose, for whom? Who can say what I have done or not done? The eye of Omniscience alone can measure the share of an individual and the import of a moment in the labors of a world.

There was a time when life flew on for me from year to year in almost undimmed happiness—in happiness, deep brilliant and monotonous, like the glory of a summer day. It was monotonous, but as the year itself, with the everlasting repetition of flowers and fruits, animating sunshine and restful darkness, exuberant life and sweet languor.

Was it a crime for me to be so happy? Why do I shudder at the idea, as if I had made all of a sudden a baleful discovery? The ancients believed the gods to be envious and resentful of the creatures' happiness when it passed certain limits. I remember the story of Polycrates and his ring; he

was crucified to restore the balance destroyed by his excessive luck. Merciful God! and I cannot but see this is the fate to which the sombre events of the past days are hurrying myself! Well, if my past blessings must be paid for, shall I call them dear at the probable price? Must thou have thy pound of flesh, fatality?

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The knot which has to be undone before I shall be released from durance seems to get more complicated every day. Is it the excitability of my over-strained nerves which lends to the whole situation this threatening aspect, or is the doom worse than of a murderer really to fall upon my innocent head! Is suspicion creative? Can hatred by the sheer virtue of its venom grow itself the food it feeds on? Can it spring into existence the proofs it requires to blast, scatter and destroy in the name of justice? I can see in all that happens to me the hand of a devil. Job was not by any means so utterly crushed as I am, and my destruction, like his, was planned by devils.

I feel at once the hand of the law take hold of me with a tighter grip, and eyes which have looked on me with compassion assume a sterner expression. Ah! why do these things exasperate me so much! Why cannot I remain quiet, unmoved (*Si fructus labatur orbis*) in the consciousness of my innocence—why cannot I remain unaffected by the judgments of men? I feel as if I was borrowing from my enemies their own cruel eyes to look at myself with them and shudder at the sight. There is a halo of damnation around me, which each new circumstance that speaks against me renders more intense. That halo exists only in my imagination—it is a moral hallucination, like that abyss which Pascal saw at his side and on whose brink he spent his life. He knew that there was no such thing, yet he humored his deluded soul by putting a chair against it. To say that the horror with which I look at myself is caused by a diseased condition of the mind is equivalent to saying that the pain cannot be relieved by reasoning or argument.

* * * * *

I have passed a night of unspeakable anguish. Fear of the danger itself, by which I am compassed, horror at the fate which may possibly be impending, is the smallest part of my sufferings. Death I have never feared. Its one disagreeable feature

is that it must separate me from her who is the greatest part of my life. But how short that separation will be! One minute of peaceful sleep, followed by a new state of united life. It does not matter whether this dreamless sleep lasts a night or an age—there is no time for the sleeper. I suppose that on the day of resurrection those who died when the last megathorium had scarcely ceased to walk about will not feel as if they had slept longer than the last born, the last buried of the world's generations. No, there is nothing terrible in death. The decay of the body—the worms—may offend the senses of the living—they have no reality for the majority. There is a manner of passing into that restful state which, it cannot be denied, is unpleasant; the sleeping draught may be a bitter one, but the bitterness will not be felt long. In less than no time it will be utterly immaterial whether we have stepped into the land of sleep from the gallows or from a throne.

No, these fears I have overcome long ago, and I trust that, should the worst come to the worst, I should step through the hideous circumstances attending such a ceremonious dismissal into eternity, without noticing them.

It is the little life that is left, that's heavy to bear. I have fallen into a morbid habit of analyzing everything. My sufferings seem to have produced some moral agents, which resolve every human and divine thing into paltry, contemptible elements. Night and day, especially at night, image after image of man's nature and activity pass before my mind, and there is none that does not offend me. The contempt with which these ideas fill me is as fierce and as painful as impotent hatred. They have looked into my face and read there almost incredible wickedness and cruelty! Pshaw! What is there that should surprise me in that! Any thinking mind must at once find out that our race is doomed to beggarly ignorance. Men accumulate furiously their petty discoveries, as ants drag their fragments to their miserable heap, and never, by any chance, does nature let a bit of real truth fall under their ken; the fools allow themselves to be made rich and happy with shadows, sheer appearances. No madman is more extravagant in his fancies than the normal man in his conceit when he has heaped up his million small conquests; he does not know what he is, where he comes from, whither he is going. In all

his journeys of discovery, he has never had the good fortune of discovering himself. If he wants to obtain some assurance as to his own destiny, he must after so many boastful achievements, kneel down at the foot of religion and receive humbly, as an alms, what no power and no fatigue of his could gain for him. That imperial genius, at last, goes to the poor-house.

It must be mono-mania. My thoughts go on harping on that string, as if some natural law, some inherent necessity, fixed them on that spot. No effort of mine can make them deviate for one minute. I might, with the same success wish myself at the Antipodes. Sometimes I find this carping demolishing spirit pass from man to God. What pleasure can He find in juggling with those luminous or illumined balls, of which a child would be fatigued after some time? What enjoyment is it to the Supreme Mind, to curse, bless, govern and hector that tragic-comical plaything, man?

I know this all comes from the festering of the wounds, whose bleeding has dried up all noble sources of thought in me. That they should see in me the very type of a midnight burglar and assassin, a creature as horrible as any phantom that can make a dream hideous,—in me who can sympathize with the anguish of a stray dog. They will perhaps be allowed to devour their prey, but I shall at least laugh—in their teeth!

While I was reading these last lines, I remembered that once I did laugh in their teeth. I wonder I have never thought of it since, for the incident gave me the only moment of almost happiness I have known for what seems a long time.

They were identifying me, they were at it tooth and nail, not calmly but with every permissible hostile demonstration, through looks, gestures, frowns, grins and so forth. The terror which had at first overwhelmed me changed under this excess of oppression into a spirit of gentle bravado and playful humor. In this curious state of mental volupty (perhaps in some mysterious manner the effect of opium had been produced without opium), as chance would have it, a line of Racine which I had unconsciously carried in my memory, perhaps owing to the charm of its monosyllabic harmony, occurred to me all of a sudden, and laying my hand upon my heart, with a swaying of

of the body which I felt to be at once noble and graceful, I exclaimed:

“Le ciel n'est pas plus pur que le fond de mon coeur!”
(Not azure heaven itself is purer than my heart.)

* * * * *

I shall see her soon. In a few hours some light will break through the gloom. She was prostrate for some time when the news of my misfortune reached her.

I find now that the manner in which I mention her in these tablets hardly does justice to my feelings. Why, almost anybody might speak thus of so near a relative. But it is because there is too much to say that I can say so little. My affection for her cannot be clothed in words, and I doubt much whether any man ever felt like me. No suckling clings to his mother with more helplessness and tyranny than my heart clings to her; no twin is so mixed up with another's life; there is a mysterious channel of communication between our two beings which almost makes them one. If she was not my sister, if there was not such a reverent sacred calmness in my affection for her, my feelings might seem more akin to love than to brotherly devotion. If any assembly of my fellow-men had to pronounce upon that question, let the assembly be ever so numerous, they would unanimously resolve that some lasting weakness or derangement of my brains, caused by my war wounds, accounts for this singular psychological fact.

A derangement of the cerebrum, or—who knows?—perhaps the *cerebellum*? That may be the right explanation, after all, for aught I understand of the matter. But I should not wonder if such *derangements* were possible to or conceivable by our Maker which would bring us much nearer to Divine thought and felicity than this well-arranged regulation brain ever will. However that may be, there is one point which is clear to me, though I may not be able to make it clear to others: there are regions of thought which would be inaccessible to me but for her guidance. Whithersoever her finger points, there my eye sees light.

Now she has come, but, as I was just told by the keeper, she will only be admitted tomorrow. How I chafe under the necessity of spending so many hours in which she is so near, as if we were separated by hundreds of miles! This is only part

of a prisoner's destiny—one of the manifold thorns with which captivity is crowned.

Many speak of liberty, speak well of it, and in glowing terms, and how few, fortunately, are able to realize even a perceptible fraction of its value! No one can give liberty its due who has not been a prisoner. The feeling of a prisoner can as little be accounted for by an effort of the imagination as the physical torments of the rack can be reproduced by the same means. That you should not be able to cross that iron-barred door is a thought that seems to have a pair of hands to choke and throttle you. You are out of the pale of mankind, swept out of it and dumped up with the rest of the rubbish between these walls. Whatever goes on outside can bear no reference to you; a newspaper is ludicrously out of place in your hands. Revolutions may take place, plagues may inflict the earth, some salutary genius may confer invaluable boons on mankind—nobody will think of telling you; you have neither to rejoice nor to lament; that is nothing to you. You carry this impression of being a living erasure along with you, and mix it, with strange results, to the events of the day. You are no longer one of them. Even the woman who brings you food to the gate, or scrubs the outer floor of a Saturday, looks at you as if she contemplated you from a great distance, like the man in the moon. The sun gets up in the morning, as usually it is to be supposed, but his rising is no business of yours. You do not see him; why should you? He is one of the arrangements, one of the appointments, of the human household to which you formerly belonged. When at night I look at the stars a feeling of constraint comes over me, as if I were taking a liberty. I feel like a boy who gazes surreptitiously at the performances of a circus through a rent in the canvas. Just now the moon, and a piece of my own favorite of passed—long passed—times, Orion, assumes a strange look, as if they meant to give me the cut direct. Oh, well, I will no longer look at your stupid pageant. And yet, may not a dog look at a bishop?

* * * * *

Is my God so far, and can I be alone when He is present wherever a human mind turns to Him? And what can destroy an earthly being that is not decreed by His will? I must be a heathen by nature and instinct. Chase the pagan

with a pitchfork, he contrives to force an entrance somewhere.

How selfish we are even when we have every reason apparently to think ourselves at our best! Nay, we are even impious, with-out knowing it. When we are as weak as infants, and have to look to humanity for our mental much more than for our bodily sustenance, we believe we are being led to Him, putting our weak hands into the hand of the Almighty, and taught to love Him, and to be happy in His love. Divine love will wipe out every wrong. We can do better only with His help. Out of the bitterness of our trials great improvement will have grown. Come, let me bow my head at the foot of the Cross and find out how my equanimity may be safely preserved in the future. Prayer first. If you are admitted to the presence of the King, and assured of His friendship, can the jeers of valets disturb you? Everywhere, above the hostile appearances that hem me in, above the gloom and terror of my present condition, I will see the cheerful light of heaven with the eyes of faith. What do I care for the snares and traps prepared for my feet, when my mutilated hand holds that of the Almighty.

* * * * *

I have sometimes tried to realize the feelings of the traveler who, unaccustomed to the dangers of the deep, finds himself suddenly confronted with all the horrors of a storm and impending ship-wreck. That tumult of water and winds rushing in upon him, death grinning at him, now from one side, now from another, lurking treacherously under his feet, gloating over him from above, all these things seem to me to be translated into my present destiny. Yet God can bring to pass the deliverance of the innocent, and it is well to commit to Him one's ways. But He may wish to deliver with those very hands raised to Him in supplication. Plato says a good many beautiful things about his Master's willingly submitting to an undeserved death, when it was easy for Him to escape. But there are many beautiful things that might be said on the other side. I think that if I was in a ship, whose captain and crew was bent on throwing me overboard, because they saw in me a cause of danger to their craft, I would oppose their proceedings in that direction to the best of my abilities. Action, prompt and decisive, is necessary to avoid the most

frightful catastrophe. But, as the French say, man proposes and God disposes! Love, beauty, eloquence, money, genius, will go to the wall. Faith alone has saved me from the catastrophe of despair. Let Plato learn philosophy of a leper, from the last ten years of my life. Ten years! Yet an hundred they seem as they pass spook-like before my mind's eye, escaped from the weight of their molding heap, and sadly creeping beneath it again.

The Negro and Monogamy.—Since England has undertaken the heavy responsibility of guide and protector of vast numbers of the negro race, it is very necessary that neither apathy nor ignorance nor prejudice should be allowed to stand in the way of a clear understanding of conditions essential to the welfare of the black, or inimical to his development. Certain very important aspects of this matter have been recently well brought out by Mr. Edmund W. Morel in his "Affairs of West Africa." In dealing with the vexed question of polygamy for the native, this writer endeavors to show that available evidence goes to prove that the effects of monogamy upon the negro are racially destructive. It has been contended by some that, owing to the exhaustive climatic conditions, the life and perpetuity of the population depend upon polygamy. Lactation is usually continued for an extensive period, often three years, during which time husband and wife have no connection; and, moreover, intercourse usually ceases when conception has taken place. It is said that this custom is attributive to the belief that too frequent child-bearing is injurious to the health of the mother and the offspring, in view of the climate. Many negro women are comparatively infertile and, as Sir Harry Johnston has shown, in some districts the majority of couples have only one child. It would be well if missionaries could be induced to face this important question in all its bearings and to seek for guidance in natural laws as well as in ethical codes. We trust the near future will bring directing light on a matter which is of the utmost importance to Africa and its native population.—*Medical Press and Circular.*

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EDITORIAL.

MEDICO-HISTORICAL CRITIQUES.

It is certainly true that the majority of physicians who are not totally absorbed in their professional engagements and that those who occasionally go beyond the portals of their offices, colleges, or who do not spend all their time in their medical libraries take an occasional dip into literature and are certainly benefited by these little excursions into the world of poetry, fiction, or such other literature as is not wholly medical in its nature. It is this change in literary pabulum which broadens ideas and, in fine, adds much of human to the physician's nature and makes him not only a congenial companion but sought after by intelligent people who read something more than the daily newspapers. This constitutes the class which furnishes not only good but appreciative listeners, provided that he who speaks has something to which it is worth listening. And, unless such an one reads and absorbs what he reads he becomes a very poor conversationalist instead of the

brilliant one, which every professional man is expected to be whenever he dares enter within the charmed circle of intelligent society. It is not such a hard task to fit one's self for such a position and yet it requires some small degree of assiduity and perseverance as well as continuity of purpose to assume such a position, and to sustain it subsequently.

We have many physicians in this country who are not only well read, but are literateurs of no mean capacity. They are good writers, and have written volumes of fiction which are destined to live. There is but one style which has been neglected and which has been taken up with much success abroad, but more particularly in France. This is the medico-historical critique. It is literary work which has added a large amount of interest to the dry details of history, and thus not only makes the record of events more interesting, but adds much of interest to facts which otherwise would be passed over as not worthy of any serious consideration. As these critiques are written they are positively fascinating and withal quite instructive from the fact that every point brought forward is supported by undoubted historic evidence obtained from obscure authors, personal memoirs and all such similar proofs as an assiduous search for and examination of church records and similar documents will furnish. He who undertakes to write such a chapter in history is confronted with a herculean task whose difficulties increase at every step. But, on the other hand, the interest involved in such a labor makes it a pleasant one and interest increases as the writer's critical acumen is exercised more and more as he advances in the pursuit of his subject, and as he endeavors to unravel some unexplained circumstances.

The best example of a writer of this character is Dr. Cabanés, who has been quite a prolific writer in this particular field. He has improved and his latest contributions are examples worthy of study and of imitation. It may be argued that this country does not possess the archives and other material which could be utilized for such an historical work. And yet in the older communities there exist parish registers which contain much, and there also exist many old letters full of interesting gossip and other articles which, if not available for immediate use, are valuable for furnishing indications as to

the direction in which search is to be prosecuted. Something of this sort has been done in this country, but it has been very little indeed. Thus some twenty-five years ago quite an exhaustive paper was read before the American Laryngological Society on the question as to the disease which killed George Washington, and a mass of evidence was brought forward to show that his trouble was cynanche tonsillaris, and the immediate cause of his death was too much bleeding. This shows that the task is not a hopeless one here, but offers very good opportunities to him who will undertake the task, and the time is very nearly ripe for some one to do this. The profession is ready for such work and it had best be done now when it is a more easy matter, than to begin later when it will be difficult.

The Pathology of Latent Malarial Infection as Observed at Autopsy.—Charles F. Craig speaks first of the pathology of latent tertian infections. The lesions found were confined entirely to the spleen and liver, the most marked being in the spleen. This organ was considerably enlarged and dark bluish-gray in color externally. On section, the color was a dark brownish-red. There was intense congestion of the splenic sinuses with pigmentation. The pulp cells were greatly increased in number, many were pigmented and distorted. The sinuses and capillaries showed many parasite-infected red cells and pigmented leucocytes. The liver was but slightly involved. In the estivoautumnal infections, the pathology differed but slightly from that of the tertian infections, and chiefly in the character of the parasites present. The younger forms were similar to those found in the peripheral blood; the older ones were round or ring-like and contained more or less pigment in the form of very fine reddish-brown granules, this pigment being very slightly motile. Each segment appeared to present the ring form which is usually found in the red cell at the earliest stage of infection. No crescents could be found in the splenic sections. The writer concludes by saying that the malarial parasites may be present in the human body, may undergo their normal life cycle and are practically localized in the spleen.—*Medical Record.*

BOOK REVIEWS.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otolaryngology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession throughout the world. Edited by A. O. J. KELLY, A.M., M.D.; WM. OSLER, M.D.; JOHN H. MUSSEY, M.D.; JOHN STEWART, M.D.; JOHN B. MURPHY, M.D.; THOMAS M. ROTCH, M.D.; JOHN G. CLARK, M.D.; JAMES J. WALSH, M.D.; J. W. BALLANTYNE, M.D.; JOHN HAROLD, M.D.; EDMUND LANDOLT, M.D., and RICHARD KRETZ, M.D. With Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Vol. II. Thirteenth Series. 1903. 8vo. pp. 311. [Philadelphia: J. B. Lippincott Co. 1903. Price per volume: cloth, \$2.00; half-leather, \$2.50. Each series consists of four volumes.]

International Clinics has been a success from its very inception, and that this success has been fully deserved the volume before us bears testimony. It is one which is filled with much of that which is excellent in medical literature, and the editorial corps is deserving of much praise for its work in furnishing such a valuable collection of superior articles by prominent medical men whose capacity is beyond any doubt and above criticism or question. An examination of a part of the contents of this, the latest volume, will demonstrate this fact to any one who has at all devoted any time to the perusal and study of medical literature, whilst the names of the contributors will serve as a sufficient guarantee of their worth as well as reliability. It is just such reading matter that progressive members of the medical profession need, and they can find it in this publication.

The volume opens with a Symposium on the Summer Diarrhea of Children, a subject which is certainly very timely and *apropos*. There are six papers, one-half of which are devoted to diagnostic, etiologic and pathologic features, the remainder taking up the therapeutics of these intestinal disorders which decimate the infantile population in summer. The contributors to this symposium are Drs. Conn, Hand, Jr., Cotton, Westcott, Nicoll, Jr., and Marfan. This certainly forms a galaxy of capable medical men and authors of repute. Diseases of the Pancreas is considered in two papers. The Symptoms and Treatment of Diseases of the Pancreas is contributed by Dr. Eugene L. Opie, and the Diagnosis and Treatment of

the Pancreas by Drs. John B. Deaver and George P. Mueller. These are particularly interesting and instructive articles.

In that portion which is devoted to treatment are to be found some most excellent contributions, notably one on a Recent Advance in Therapeutics: Local Treatment, by Dr. Charles Bouchard. The Rest Treatment: When Indicated and How Conducted, by Dr. John Madison Taylor, is of more than ordinary value. In the part devoted to Medicine a good as well as valuable paper is that by Dr. Alexander Haig on the Etiology, Prevention and Treatment of a Common Cold. There are three articles on Heart Disease, and then we come to the department devoted to Surgery, which also has three articles, the most notable being by Dr. D. V. S. Roeslin, on the Surgical Relief of Traumatic Epilepsy. Cirrhosis of the Liver in Children, by Dr. W. F. Hamilton, is a well-considered contribution to Pediatrics. In the department of Obstetrics and Gynecology a notable article is that on the Causation and Treatment of Sterility in Women, by Dr. J. Riddle Goffe. There are two other excellent articles. The volume closes with a finished paper on Surgical Intervention in Paralysis of the Ocular Muscles, by Professor Edmund Landolt.

This volume is gotten up in the usual finished style characteristic of the publications of the Lippincott Company. The illustrations are numerous and very excellent. In fact, International Clinics have been continually improving, both in the character of their contents and in the quality of appearance. The publication is one which claims the best contributors of this country and Europe, and is eminently a publication for intelligent, reading physicians.

A Manual of Obstetrics. By A. F. A. KING, A.M., M.D. 12 mo. pp. 622. Ninth Edition, Revised and Enlarged. With Two Hundred and Seventy-six Illustrations. [Philadelphia and New York: Lea Brothers & Co. 1902. Price, \$2.50 net.

A good book, which is well written and has the endorsement of teachers and students alike, cannot fail of being a success, and this is just what has befallen the well-known Manuel of King, a copy of whose ninth edition is before us. It has proven its worth, not only as a preparatory manual for students who contemplate reading large treatises, but it as well earned a well-deserved reputation as a reliable and valuable reference book for practicing physicians. Anyone who has had occasion to consult the pages of this book will have found that it is very full of information, just of that character which is needed; and, as some one has aptly expressed it, it is "meaty." It is so arranged that reference is easy and does not consume time, a qualification of the utmost importance to the

busy practitioner, who, in many instances, labors under the misfortune of not being able to devote sufficient time to his reading. By means of such an aid as the book before us furnishes, he may be able to gain some little time and profit by it. The author of this book has not permitted an opportunity to escape him of keeping it abreast of the times, and so many editions have appeared that the book has always been up to date, as it is now. Errors have been corrected and obsolete methods of practice omitted. A most important chapter, which has been most carefully remodeled, and, for the most part rewritten, is that on puerperal septicemia, a most important subject to the obstetrician. In this chapter alone the eminently practical character of this manual is demonstrated; and an equally close examination of the other chapters will show that they are of the same practical utility. We notice that many of the older illustrations have been omitted and replaced by new ones, an improvement which will be appreciated by all those who use the book.

We can heartily commend the book to both practitioners and students, and we are sure that teachers will make no mistake in recommending it. The publishers have produced the book in their usual good style.

The Latin Grammar of Pharmacy and Medicine. By D. H. ROBINSON, Ph.D. With an introduction by L. E. SAYRE, Ph.M. Fourth Edition. With Elaborate Vocabularies, thoroughly revised by HANNAH OLIVER, A.M. 8vo. pp. 277. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.50 net.

A good Latin grammar, particularly adapted to the needs of pharmacists and physicians, is a book which will always be in demand, more particularly in view of the fact that the standard of requirements is being raised. The system of the book before us is a good one and in this edition we are presented the results of several revisions in which improvements have been suggested by the experience of the writer, aided by the revisor. In fact, it is a simplified grammar which contains all the essentials, given in an uncomplicated manner and one which is not only easily understood but easy to acquire.

It is a book which easily recommends itself to students and teachers and can be conscientiously recommended. It is singularly free from errors. We have found a slip on the part of the proof-reader on page 183, where *leute* is printed for *lente*. This is a very minor error, but still it deserves correction in a future edition, which we are sure will soon appear. We can heartily recommend this book to those who have not completed

their course in arts, as it will enable them to bridge a large lacuna with very little trouble.

The publishers have made a very neat and attractive book of this.

THE MEDICAL EPITOME SERIES.

Medical Jurisprudence. A Manual for Students and Practitioners.

By EDWIN WELLS DWIGHT, M.D. Series edited by V. C. PEDERSEN, A.M., M.D. 12mo. pp. 247. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$1.00 net.

In this manual we have presented to us a very intelligent statement of the law and the reason upon which it is founded, and the author has made it an up-to-date exposition of the principles of medical jurisprudence as far as the requirements of space have permitted him to do so. It must be acknowledged by all those who have any intimate knowledge of the subject that it is a very difficult one to handle in such a restricted volume as the one before us with any degree of satisfaction. It is in this very respect that the author of the little book before us has acquitted himself so successfully. His perfect knowledge of his subject and his familiarity with its details is evidenced in the successful manner in which he has acquitted himself of his task. It is a well written book, full of useful information for physicians.

Microscopy and Bacteriology. A Manual for Students and

Practitioners. By P. E. ARCHINARD, A.M., M.D. Series Edited by V. C. PEDERSEN, A.M., M.D. 12mo. pp. 210. Illustrated with Seventy-Five Engravings. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, 1.00 net.

This is another of Lea's Medical Epitome Series, and it certainly sustains the reputation achieved by its predecessors. It is not only well written, but is full of useful information on the subjects with which it deals: The clearness of the text is much enhanced by the illustrations, among which is to be noticed six well executed colored plates. The book is admirably constructed for teaching purposes and can also serve a most useful purpose to those practitioners who have not made a special study of bacteriology, as well as to those who are in need of a book for quick and ready reference. It is written in such a way that ready reference is easy, and one of its leading traits is that it is thoroughly reliable.

LITERARY NOTES.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

A Manual of Obstetrics. By A. F. A. King, A.M., M.D. 12mo, pp. 622. Ninth Edition, Revised and Enlarged. With Two Hundred and Seventy-five Illustrations. Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$2.50 net.

The Latin Grammar of Pharmacy and Medicine. By D. H. Robinson, Ph.D. With an Introduction by L. E. Sayre, Ph.M. Fourth Edition, with Elaborate Vocabularies, thoroughly revised by Hannah Oliver, A.M. 8vo. pp. 277. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.50 net.

THE MEDICAL EPITOME SERIES.

Medical Jurisprudence. A Manual for Students and Practitioners. By Edwin Wells Dwight, M.D. Series Edited by V. C. Pederson, A.M., M.D. 12mo, pp. 249. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$1.00 net.

Microscopy and Bacteriology. A Manual for Students and Practitioners. By P. E. Archinard, A.M., M.D. Series Edited by V. C. Pedersen, A.M., M.D. 12mo. pp. 210. Illustrated with Seventy-four Engravings. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$1.00 net.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetric, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A.M., M.D., Philadelphia, U.S.A., with the Collaboration of John B. Murphy, M.D., Chicago; Alexander D. Blackader, M.D., Montreal; H. C. Wood, M.D., Philadelphia; T. M. Rotch, M.D., Boston; E. Landolt, M.D., Paris; Thomas G. Morton, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; and John Harold, M.D., London; with Regular Correspondents in Montreal, London, Paris, Leipsic and Vienna. Vol. II. Thirteenth Series. 1903. 8vo., pp. 311. [Philadelphia: J. B. Lippincott Company. 1903. Cloth, \$2.00; half-leather, \$2.50.

Dr. Ralcy Husted Bell has assumed the editorship of the *Medical Mirror*, made vacant by the sudden and untimely death of Dr. I. N. Love, its founder.

Nose and Throat Work for the General Practitioner is the title of a forthcoming book by Dr. G. L. Richards. The book will be profusely illustrated, and contains about 375 pages. It will be published at the price of \$2.00 by the International Journal of Surgery Co., 100 William St., New York.

The Medical Critic.—This is a high-class medical journal, which has been thoroughly reorganized. It will be issued by the Medical Publishing Company of America, an organization composed exclusively of physicians. In addition to the *Medical Critic*, which is a monthly, the company proposes to issue a daily medical journal, the subscription price for both being one dollar. The publishers will pay liberally for all original contributions of especial value. A circulation of 100,000 copies daily is guaranteed. Address the Medical Publishing Company of America, 154 East 72d Street, New York City.

Bacteriological Charts.—The M. J. Breitenbach Co., of New York, has issued bacteriological charts for free distribution to the medical profession. No text-book and no one work on pathogenic bacteria contains such a number of excellent diagnostic illustrations nor such beautiful examples of lithographic art as these.

Many physicians are too far from libraries and laboratories to be able to put into practice the training of their college days. They need just such a set of reference plates to be able to make microscopical examinations. The recognition of this need and the care that has been taken to fill it shows a spirit of enterprise in this firm that we wish might serve as an example to others. For if, instead of advertising to the public, the manufacturers of drugs would make such valuable contributions to science as lies in their power, there might be more sympathy between them and physicians.

The full set of sixty cuts has been prepared to send to any physician who writes for them, from the firm of M. J. Breitenbach Co., New York.—*Medical News*.

The Journal of Cutaneous Diseases, Including Syphilis.—(Editorial from *The New York Medical Journal* of April 18, 1903) —“Under this title the former *Journal of Cutaneous and Genito-Urinary Diseases* continues its existence in its twenty-first volume, beginning with the January number for 1903. The strong editorial staff, consisting of Dr. Edward B. Bronson, Dr. Prince A. Morrow, Dr. George T. Jackson and Dr. John A. Fordyce, of New York; Dr. James C. White and Dr. John T. Bowen, of Boston; Dr. Henry W. Stelwagon, of Philadelphia; and Dr. James Nevins Hyde, of Chicago, with Dr. A. D. Mewborn, of New York, as acting editor, is surely a guarantee of excellence,

more especially as we understand that all these gentlemen are actual collaborating editors, and not *nomina et preterea nihil*. Transactions of the American Dermatological Association, of which body it is the official organ.

"The mechanical setting of the journal is worthy of its contents."

[This *Journal* is better now than it has ever been in its whole career, and we understand that the publishers contemplate enlarging it. In fact, every effort will be made to render this publication the superior of any one of its class in dermatological literature. As it now appears it is the equal of any, and it has an editorial corps which is capable of making the *Journal* what we designate its future will be.]

The Grafton Press, 70 Fifth Avenue, New York, Publishers.
Price, \$3.00 a year.

MELANGE.

A Danger from Canada.—

To the Editor of *The Mail and Express*:

Sir—Referring to your editorial, "The Back Door for Immigrants," in to-night's *Mail and Express*, allow me the observation that in Canada, a country which has let down the bars to Asiatic invasion, there are centers of leprosy constantly menacing us. A Scotch-Irish one in Nova Scotia and New Brunswick, a Chinese and Japanese center in British Columbia and the Fraser River country, and an Icelandic and Norwegian one about Winnipeg and Manitoba. In a letter which I wrote to his Excellency, the Governor-General of the Dominion of Canada, I mentioned these matters, and called his attention to the danger of the establishment of these centers to our own States of Washington, the Dakotas and Minnesota. "These facts," I said in my letter, "will show your Excellency that the Dominion, if not as much interested now in the question of suppression of leprosy, is very much interested in the prevention of the disease by keeping out of its limits the hordes of infected Chinese and Japanese."

The consideration of the world's most eminent writers on leprosy and the practical knowledge of those who know the disease best will serve this government to prescribe rules of

hygiene and policy to be observed to protect its individuals and society against this most terrible of all diseases: to avoid every kind of relation with lepers, especially those who have reached an advanced stage of the disease, and, more than everything else, to avoid living in closed places where lepers have resided, and using furniture and other objects which have belonged to them. A piece of clothing, a dwelling, have sufficed to infect almost a whole family. Fleas, flies and other insects are sufficient to transmit the disease by inoculation.

These facts are as well known to A. C. Smith, the inspector-general for leprosy of the Dominion of Canada, as to us, and also to Dr. Montizambert, the chief quarantine officer at Ottawa. They know, too, full well the horrible picture of leprosy when it begins to sketch, to delineate itself. What a delineation! *Rey de los espantos* (King of terrors), as Dr. Ricardo de la Parra, himself a victim, called it. Terrible anathema, which in the law of Moses and under the legislation of the middle ages condemned the miserable leper to the most horrible ostracism; cancer of families and of society, a thousand times more painful and more loathsome than the pestilence of Egypt, the cholera of India and the yellow fever; only to be compared with the penalty of death, but death chronic, by slow marches, which comes only when the poor wretch has drained the most bitter chalices and endured the most cruel moral tortures!

ALBERT S. ASHMEAD, M.D.

A Danger from Japanese Immigration.—

To the Editor of *The Evening Post*:

Sir—I estimate the number of lepers in Japan as much higher than what is given by the official statistical figures. The latter, not such a long time past, gave 23,647 lepers in a population of about forty-five millions. The oldest colony of lepers in the empire of Japan was in Nara, near Kioto, of which Katakara Genshiu speaks in his book (*Bai-rei-Shinsho*) on syphilis and leprosy. This goes back to the time of the Empress Gemiyo, who is said to have imposed to herself to wash a thousand lepers with her royal hands (718-740 A.D.).

How favorably isolation has worked in Japan one can see by the fact that among the Ainos, the aboriginal race which inhabited the island before the Japanese, and who now live on

an island, Yezo, 17,000 persons in all, leprosy has never been observed. The word Aino in Japanese means "dog," and was applied to them on account of their extreme hairiness. Besides this, the Aino was as white as a Caucasian, and whiteness of skin in Japan is thought to be due to inherited leprosy. Thus the Aino formed no hybrid with the Japanese. He was outcast, and forced to live apart from the conquering race. In twenty centuries of such isolation from the leprous infected Japanese there was never known the case of an Aino afflicted by leprosy. This is the conclusion of friends of mine in Japan who have fullest access to the statistics there.

In Japan the law forbids marriage into a family in which leprosy has ever appeared. Therefore lepers are frequently hidden for years. I was shown one who had been chained for twenty years in a cave. The physician who attended him showed him to me. Their sufferings, too, are for the same reason often declared as belonging to another disease, in consequence of an understanding with the family doctors. I believe that in the present Japan, with its forty-five millions of inhabitants, there are more than one hundred thousand lepers, a figure which, if the authorities, who corroborate it, hit the truth only approximately (and no less an eminent Japanese physician than Dr. S. Murata is one of them), is certainly terribly high, as it represents about one-fourth per cent of the whole population.

I am prompted to detail these facts to you because one hundred of these lepers are said to have come to this country with the constantly increasing Japanese immigration to our Pacific Coast, and are said to be engaged now in catching and canning salmon on the Columbia and Fraser Rivers. It behooves this Government, therefore, to enter into an amicable treaty with Japan, for the purpose of determining by medical examination whether any of the future emigrants to America are leprous before their departure from Yokohama, and for the prompt return, at the cost of this country, of those Japanese who may develop the disease after they shall have come here. An international leper treaty between the United States of America and leprous Japan is imperative.

New York, Oct. 25.

ALBERT S. ASHMEAD, M.D.

Artificial Immunity in Experimental Tuberculosis.—E. L. Trudeau has succeeded in producing a relative immunity in rabbits and guinea-pigs against tuberculosis, though in his experiments thus far it has always been possible by flooding the systems of the animals with a large dose of highly virulent bacilli to produce death. The writer declares, however, that this is an unnecessarily trying test, and is in no way comparable to exposure to natural sources of infection. A typical experiment on a guinea-pig is thus described: On June 10, 1902, the animals to be protected received in the left thigh an injection of one-quarter milligram of attenuated T. B. R. 1 culture. Slight loss of weight followed, and on September 26 they failed to react to 10 milligrams of tuberculin. They then received one milligram of living attenuated tubercle bacilli in the peritoneal cavity, which produced little appreciable disturbance of health. On January 7, 1903, they, together with five controls, received an injection of one-half of a milligram of highly virulent tubercle bacilli culture subcutaneously in the right thigh. The controls all died, with an average life of fifty-five days. The vaccinated animals survived, and now, one hundred and fifteen days after virulent inoculation, are in good condition. Some show at present no trace whatever of virulent inoculation, though some undoubtedly have chronic tuberculosis, as they have enlarged inguinal nodes. He has known such animals to live over a year. Further questions suggested by results obtained are these: What are the dangers of the immunizing process? What is the duration of the immunity produced? Is a living but attenuated germ necessary to the protective process? Can the immunity it produces be strengthened or not by additional inoculation of the toxins of the bacillus or of the serum of already immunized animals? Can the young be protected by the milk of immunized cows? Can the serum of protected animals produce immunity of shorter or longer duration and favorably influence the course of the disease in tuberculous men or animals? To all these questions no positive answer can as yet be given. The article should be read in the original by all physicians specially interested in the tuberculosis question.—*Medical Record.*

MISCELLANEOUS NOTES.

Dioviburnia and Neurosine in Dysmenorrhea.—"I am more than satisfied with the results obtained from the combination of Dioviurnia and Neurosine. (equal parts) in Female Neuroses and Dysmenorrhea."

FREDERIC B. WEBB, M.D.

105 S. Jefferson St., Roanoke, Va.

Pil. Mixed Treatment (Chichester).—We hope that you will test this pill, and so appreciate the advantage of giving the Mixed Treatment in powder-form, incapsulated, since it forms an impromptu solution in the stomach. Its manifest convenience for business men and travellers, aside from other merits, will readily be seen. If you will write for samples, they will be sent with pleasure.

Respectfully, HILLSIDE CHEMICAL CO.

Newburgh, N. Y.

Hints in Treatment.—Vaginitis is so common, and so often the result of infection, that a wafer equally efficacious with infection or without, is a boon to the practitioner. I refer to the Medicated Uterine Wafer of Micajah & Co., that is giving such satisfactory results in general practice. These wafers may be safely given to patients living at a distance to be inserted every second or third night after copious injections of hot water. The tonic effect is marked and as the wafers are self sustaining no tampon is necessary.

Sanmetto for Enlarged Prostrate in the Aged and Enuresis Nocturna in Children.—My experience with Sanmetto has been most gratifying. I consider it the greatest remedy I ever used in cases of aged men with enlarged prostrate. I am now using it in two cases of nocturnal incontinence—both children are improving rapidly.

Olpe, Kan.

W. H. LYLE, M.D.

Dermapurine in Skin Diseases.—It gives me pleasure to inform you that I have used Dermapurine with excellent success in a great number of cases of infantile eczema, it curing after all other means tried have failed.

J. W. P. SMITHWICK, M.D.

LaGrange, N. C.

Dermapurine.—Your samples received sometime ago. I used them in a case of impetigo and herpes and one of acne. They all commenced immediately to improve and in a few days were well. Dermapurine deserves the highest praise that can be bestowed.

DR. H. T. WHARFF.

Edwardsville, Ill.

Letter to a Friend.—(Published by consent of both parties.)

My dear S.: I am a pessimist on new preparations, but allow me to relate my experience with Neurilla. A patient came to my office two days after receiving your sample, practically collapsed. After examination I discovered prominent symptoms of nervous exhaustion, aggravated by heart-failure. My first motive was to resort to tried methods, when accidentally I came across your sample. I used it hopelessly, when, to my surprise—pardon the word—he recovered in such a short time that my confidence and faith in Neurilla is more tenable than any similar preparation that I know of. Now, I write you this note possibly it may convince you that their preparation has merits not sufficiently recognized, and to compliment its manufacturers on its efficiency. Assuring you of giving it prominence in cases that I feel convinced will be relieved thereby, I remain,

Gratefully your friend,

(Signed) J. E. KELLY, M.D.

69 West Ninety-ninth Street, New York City.

Germ Destroying and Nerve Soothing.—The following excerpt from an article in the *Virginia Medical Monthly* by Stephen J. Clark, M.D., No. 66 W. 10th Street, of this city, plainly outlines the useful combination of the two leading remedies in materia medica :

“ Binz claims specific antiseptic powers for quinine; other writers are in accord with him on this point, and report good results from large doses in septicemia, pyemia, puerperal fever and erysipelas. It is a germ destroyer of the bacilli of influenza (la grippe). Antikamnia and quinine tablets will promptly relieve in this disease. Quinine is a poison to the minute organization, sarcina; and antikamnia exerts a soothing, quieting effect on the nerve filaments. A full dose (two five-grain tablets) of this remedy will often arrest a commencing pneumonia or pleuritis. These tablets are also useful in the typho-malarial fever of the South—particularly for the hyperpyrexia—both ‘quinine and antikamnia, as previously said, being decided fever reducers. They are likewise most valuable in cases of periodical attacks of headache of non-defined origin; of the so-called ‘bilious attacks;’ of dengue; in neuralgia of the trigemini; in that of ‘ovarian catarrh;’ and, in short, they are effective in every case where quinine would ordinarily be prescribed and without the ‘ringing’ which generally accompanies the administration of quinine alone.—*New York Medical Journal.*”

Celerina as an Exhilarant.—The action of Celerina on the brain and nervous system is that of an exhilarant, relieving depressions and lessening irritable nerve conditions. In cases of organic and functional lesions of the heart, an increased steadiness of pulse beat and diminution of pulse variation is apparent.

ST. LOUIS Medical and Surgical Journal.

Whole No. 754.

VOLUME LXXXV.—OCTOBER, 1903.—No. 4.

ORIGINAL COMMUNICATIONS.

COUGH IN PULMONARY PHTHISIS.

BY J. LEFFINGWELL HATCH, B.SC., M.D., F.R.M.S., LONDON.

As broods silence back of sound, so also stands designer back of design, and the logical mind of man has ever thus traced a presumptive relation between the thing observed and its supposed origin, and called them respectively cause and effect.

Thus in medicine we look from symptoms to a cause, and if post mortem we find a definite lesion we too often jump to the conclusion that it must be the very thing we are looking for, and are apt to forget that back of this change of structure lingers the first real cause in perverted physiologic function.

One of the best known and oldest symptoms, and one which occurs from diverse causes, is cough, and this with another, almost as common and well known, dyspnea, go hand in hand among the various affections of the respiratory organs.

In pulmonary phthisis cough is usually the first symptom manifest and lasts throughout the disease, but the cause is not the same in each stage and consequently requires careful study and varying treatment in the different stages.

The earliest physiologic alteration is a hyperemia usually at the apices. This congestion of the capillaries is the causal irritation that brings about the cough reflexly through the medium of the nervous system. Here a nerve depressant and vaso-motor dilator is indicated rather than an analgesic and expectorant.

In the next stage of consolidation the hepatized tissue acts as a foreign body and likewise reflexly brings about a useless cough in vain effort to get rid of itself. In this stage resolution should be established by means of an alterative and the nerves quieted by a sedative.

In the third stage where the tissue has undergone cheesy degeneration and broken down, it really is a foreign body that causes the cough, which can only be relieved by its removal, hence we give stimulating expectorants in combination with sedatives and analgesics to relieve the nervous spasms and consequent pain.

The sum total of the forces of a consumptive is at the most a low figure, and we try to keep this up by a high diet that often deranges other organs, whereas regard to the conversation of force by lessening the cough will give the same result without detriment to other emunctories.

To allay cough, then, has been the aim of therapeutists from time immemorial, and of the different concoctions and mixtures that have been vaunted and foisted upon long-suffering humanity—their name is legion.

Probably the greatest boon that ever came to us in the form of medicine was opium, and some form or other of this drug has been and always will be used to a great extent as an ingredient in every cough mixture.

Of the alkaloids of opium, morphia has probably been the most popular until recent years, when codein has claimed considerable attention and threatened to unshrine its place; but since the discovery of heroin, by Prof. H. Dresser, of Elberfeld, Germany, in 1898, this has been made impossible, and the new analgesic after careful study both in Europe and America has found great favor among practitioners, especially in diseases of the respiratory organs.

In the fall of 1900 my attention was called to Glyco-Heroin (Smith), and I tried a sample bottle on a patient with such gratifying results that I determined to make further observations.

What these results were, the clinical record below tells more graphically than worded phrases of description could hope to do.

It does not nauseate, and can be given in teaspoonful doses

as often as every two hours to adults, dose of course being graduated in children according to the age, although they tolerate heroin where opium would produce untoward results.

The greatest advantage this preparation has over all others lies in the fact that it does not contain anything that deranges the stomach, and can be given indefinitely without the patient turning against it.

The majority of cough-mixtures contain sugar, which is bound to undergo more or less fermentation; opium, which constipates and affects respiration, and belladonna, which checks the secretions, so that if they are able to lull the patient into oblivion of his condition for a few hours on account of the large amount of narcotic they contain, he awakes to find a stagnation of secretions with renewed paroxysms of coughing, and "pushing the mustard to fanaticism" for further relief he eventually becomes a slave to opium.

I have used Glyco-Heroin (Smith) now in over fifty cases, with the unvarying result that it relieved the cough, reduced the temperature, increased the volume of respiration, and allayed the night sweats, while at the same time it did not derange the stomach or cause constipation, did not produce vertigo nor nausea, never weakened the respirations, nor caused deleterious effects upon the heart, so that I can frankly say that without doubt we have in this compound the ideal cough mixture for the cough of phthisis pulmonalis.

The cases that I here quote I have selected from a series of fifty-three, with the idea of not citing cases so near alike as to produce monotonous repetition, no matter how gratifying the results.

As has been well said of this preparation, it is not only a true pharmaceutical product but an ethical one as well, and one that the physician can use understandingly, as its composition and physiologic action are well known.

Unfortunately all good things are sooner or later imitated, and something put forward as just as good but cheaper, and Glyco-Heroin (Smith) is no exception to this rule, so if results are not satisfactory, substitution must be at the bottom of it.

OBSERVATION ONE.

Mrs. Marie B., aged 32, father living in good health, mother died several years ago, does not know cause of death.

She was thin, and her complexion was of a muddy, yellow color when first examined. Weight $122\frac{1}{2}$ pounds; pulse, 100; temperature 100° F. Respirations 36 and difficult.

She had a fairly good appetite, but was constipated. She menstruates regularly, but has coughed and expectorated for two or three years. Sputum analyzed showed the presence of tubercle bacilli. She had a pleurisy eight years ago the result of a cold, both lungs were affected since then, crepitant rales throughout, and areas of congestion here and there.

Her sputum had been tinged with blood, but she had never had any hemorrhages.

I gave her an emulsion of cod liver oil, and Glyco-Heroin (Smith) in teaspoonful doses every two hours. The cough was relieved from the first and after four months had entirely disappeared. The lungs cleared up, no more rales or areas of congestion, and she gained ten pounds in weight.

OBSERVATION TWO.

Miss E. M., aged 32, unmarried. Had been ill six months before coming to me for treatment, and a diagnosis of tubercular laryngitis had been already established by someone else.

There was dullness on percussion over nearly the entire area of both upper lobes of the lungs, she had night sweats, fever, and a persistent cough, raising considerable. She was pale and emaciated, highly excitable and nervous; pulse, 110, temperature, 102° F., respirations 26.

Microscopic examination of the sputum revealed the presence of the tubercle bacilli.

On laryngoscopy I found an extensive ulcerative process on the posterior wall of the larynx just above the vocal cords, and both epiglottidian folds were congested and swollen.

Besides the local treatment for her throat trouble and constitutional care I gave her Glyco-Heroin (Smith), one teaspoonful to be taken every two hours.

There was marked improvement after the first twenty-four hours and she said she had slept well through the night, had coughed scarcely at all, freedom from which distressing symptoms she had not enjoyed for months.

The temperature gradually went down to normal, the night sweats ceased, and in a little over one month's time the cough had left her entirely. The ulcer in the larynx was finally

healed, which relieved her hitherto painful deglutition; besides this she gained flesh and strength, due, undoubtedly, to the conservation of force which the mitigation of the cough afforded.

OBSERVATION THREE.

Mrs. I. T., aged 35, had one sister who was tuberculous. She had been ill for over ten years when she came to me; previous to her bad feelings she had been operated on for prolapsus uteri; about five years ago first noticed that her abdomen was increasing in size. This proved to be due to a fibroid tumor which grew to such an extent that her abdomen measured thirty-seven inches in circumference. She had coughed for about six years, but her aspect was fairly good; she weighed 137 pounds, but was nervous and impressionable; respirations were 20, pulse 83, temperature 101.1° F.

Physical examination revealed numerous moist rales on the right side, and her sputum on microscopic examination showed the tubercle bacilli.

She was given Glyco-Heroin (Smith) in conjunction with constitutional treatment, and received local electrical treatment from the hands of a specialist. At the end of eight months her abdominal measurement was reduced to thirty-three inches, cough and expectoration had entirely disappeared, as well as the moist rales, and her temperature, pulse, and respiration became normal.

Whether her cough was entirely due to lung trouble or was partially due to the uterine difficulty I was unable to determine, but granting both factors as a cause Glyco-Heroin (Smith) cured it.

A Case of Late Contagion of Scarlet Fever.—M. R. Millon reports the case of a boy who was affected with scarlet fever, contracted probably at school. His younger brother was at once sent away from home. The patient went through the various stages of the disease, after which disinfection and destruction of every possible source of contagion was carried on to a degree that seemed almost extreme. The younger child returned after forty-five days of absence, and the very next day was seized with a typical attack of scarlatina. These facts prove that the contagious period of the disease is much longer than is usually supposed. It is also worthy of note that in spite of the most minute and rigorous disinfection, the agent of the disease was not totally destroyed.—*Medical Record*.

A CASE OF DOUBLE VILLOUS TUMOR OF THE RECTUM.

BY CHEVES BEVILL, WINFIELD, ARK.

Owing to the variety of villous tumors of the rectum I wish to report the following case: In November, 1902, I was called to see a lady in the Indian Territory, and while there I was requested to go see a man about 45 years of age, who was suffering with "bleeding piles." He was pale and weak owing to the loss of blood. He informed me that he lost blood every time that his bowels acted, and that the tumors came out and that he had to bathe them with cold water and had used ice when he could get it to check the bleeding. I used an enema of warm water and glycerine. Upon the passing out of the water the tumors also came out and bleeding freely, so much so that I had to mop them over with sol. of adrenalin chlorid, 1 to 1,000, (P. D., & Co.) This checked the bleeding so I could see how to go to work. I caught hold of the edge of one of the tumors with a pair of long-bladed forceps (Kocher's.) I made gentle traction and found that it was attached to the right side of the rectum, about two and a half inches up; I found it to have a broad base over one inch and the body was two inches and three fourths in length and near two in width and at least one inch in thickness. I had the patient in the knee breast position, which gave me a good opportunity to get at the tumor. I passed my thumb and index finger up and caught the base or pedicle and could feel an artery beating very distinctly. I now recalled having read in Allingham's "Work Upon the Rectum," of his having a case of the same kind.

By this time, owing to my touching the other tumor which was just on the opposite side of the rectum, it had begun to bleed freely. I found that I would have to use more adrenalin. I injected five drops into it with a fine hypodermic needle. This blanched the soft blood-red tumor until I could see how to proceed. I moved the forceps as close down to the rectal walls as I could, and with small needle forceps passed a short straight needle through the base of the tumor, one third of its width, and as my ligature was double, I tied it firmly, and again tied the base through twice more, until the whole was well ligated, and cut off the tumor with curved scissors, then

cauterised the stump with pure carbolic acid. I then treated the other tumors in the same way. Except I had only to pass the needle through it one time, as its base was not so broad by a half inch, though it was as large as the first one. I now packed the rectum with gauze, and the patient went to bed. He suffered some during the night.

I told him how to do and to come to my office if anything further had to be done, as he lived 130 miles from me. He got up in five days, and I heard from him this week, (July 25, 1903) and has had no further trouble or bleeding, and has ploughed all spring and summer, which he has not been able to do for four years, owing to any exercise to amount to anything bringing the tumors down, and even then when they were up in the rectum there was a gory discharge that kept up until he had to wear a pad to keep his clothes from being wet all the time.

Remarks. After my experience in this case, as it was the first one of the kind that I had seen, during 27 years of practice and 23 of treating piles and other rectal diseases such as we meet in country practice, I began to look up the subject of "Villous tumor of the rectum," and I was astonished to see how few were reported.

The first reference that I find to this variety of tumors is in Vol. III of Velpeau's *Operative Surgery*, by Mott, New York, 1847. He quotes Rout as the first to define the different classes of rectal polypii.

I find by referring to the surgical works that I have, that Halins & Hulkie speak of it as being rare, Moullin, by Hamilton, says the same, Dennis, in his *System of Surgery*, says "That it is not so rare as Dr. Matthews says."

Quain's *Dictionary of Medicine*, Vol. II, 1894, says "that it is rare," Erichsen does not say much about it.

Park's *Surgery*, by American Authors, second edition, speaks of it being "rare."

Kelsey, *Diseases of the Rectum and Anus* 1893, says it is not frequently found, Allingham, in his *Diseases of the Rectum*, that I have, edition of 1883, says that he had "seen up to that time 14 cases in all."

Wyeth, *Text Book of Surgery*, third edition, refers to Matthews as saying that it is the rarest of diseases of the rectum.

Matthews Diseases of the Rectum, second edition, says that he had seen but one case in fifteen year's practice in rectal diseases, and adds, "That since the first edition of his book had been issued that he had seen one other case." Albert, Surgical Diagnosis 1902, only refers to the different polypi of the rectum and leaves the subject.

Progressive Medicine, for the past three and a half years, does not report a single case.

So much seems, indeed, to be "rare," and so far as there being one upon each side of the rectum at the same time and them pressing against each other as in the case above reported it is still more "rare."

Winfield, Ark., Aug. 13, 1903.

BOVININE IN CONSUMPTION.

From the prevailing disbelief, which was almost a despair, the recent knowledge that consumption is curable is rapidly disseminating.

This is not due to any miraculous medical specific that has appeared, or ever will appear; nor to climate alone, for cases originate in California, Colorado, the Riviera, and the most noted resorts of the Swiss Alps; but it is accomplished by the rapid restoration of tissue-waste with nutrition that contains all the elements of the human body, in right proportions and ready for immediate assimilation, to enable the system to build faster than the malady can break down.

While it has been abundantly proven that the *tubercle bacilli* is often the means of perpetuating consumption, it never has been satisfactorily demonstrated that it is the sole cause of the disease. No doubt every human being in the civilized world is sooner or later exposed to this germ, but only a small minority are susceptible to its infection. The great majority are immune by virtue of normal vigor, normal nutrition, which does not furnish the nourishing nidus for this bacillus.

The long and feverish search for a drug that shall demonstrate its rights to be called a specific has been almost abandoned. The thousand and one alleged "cures" or specifics for con-

sumption have all proved cruel delusions. Tuberculin is a sorry example. Creosote, cod liver oil, guaiacol, and all their derivations and modifications have signally failed. Recent searchers have confined their efforts mainly to the field of antagonizing serums; but instead of reaching favorable results, it looks as though the whole serum theory would, ere long, be abandoned as a mistake.

There is no positive cure for consumption outside of an element or influence that restores normal nutrition that enriches the blood and builds the tissues. This being accomplished, Nature does the curing. The sooner we all accept this demonstrated fact that general vital recuperation, by whatever means it may be accomplished, is the only cure that is scientific, that has ever been known or ever will be known, the less time we will lose in conducting the battle royal with this fatal scourge.

Patients who die of tuberculosis, *starve to death*. Those who recover from tuberculosis are *fed to health*—cured by feeding. Feeding, however, is not necessarily nourishing, no more than eating is assimilating. Thousands of victims of this wasting disease starve with stomachs full, and plenty more within reach. There is no dearth of elegant and costly viands—it is availability they lack. They call for an exhibition of vito-chemic force which the consumptive's stomach does not possess. Bovinine does nothing of the kind. It is a living tissue pabulum in natural solution and instantly available. It responds at once to the demands of the starving organism.

Life nourishes life, cell rebuilds cell, and the life of all cells is the circulating, vivifying fluid, the sap of the tree, the blood in the animal. Plants transmute crude inorganic matter into organic forms; animals take up vegetable organisms and advance them to a higher stage. Each advance is an intensification, a rise in the vital scale, a further refinement of cell structure and cell function.

Bovinine quickly and permanently restores the broken constitution of the consumptive by supplying the vitalized protoplasm, living cells, ready for instant appropriation, without taxing the digestive system. It builds up the demoralized system by furnishing the ready prepared pabulum, and by resting them restores the digestive and assimilative functions.

The victims of consumption starve because the vital organs tire out and give up the struggle, surrendering to the forces that disintegrate and destroy.

Bovine bases its claims wholly on its direct and positive influence in restoring vital tone, flesh and strength to the debilitated system. It begins at the foundation by restoring the blood. It supplies the shattered and wasted organism with exactly what it must have in order to recuperate, and supplies it in a form that is immediately available.

The "Sleeping Sickness" of Uganda.—Every loyal Britisher must feel an interest in the evolution of Uganda, and should recognise the responsibility we have accepted in regard to the natives of that still undeveloped but rich land. It is manifest to every thoughtful mind that in the upbuilding of this new country the native races must play an important if not the chief part. But the country is being laid waste, progress is arrested, the unfolding of enterprise is stayed, for a mysterious malady is devastating the land. Dr. C. Christy, one of the members of the Commission recently sent out by the Foreign Office and the Royal Society, who has just returned from Africa, tells us the disease is raging in South Kavirondo and spreading along the shores of the Victoria Nyanza. Although its chief clinical characters are now clearly defined, its pathology yet remains obscure. It seems clear that it is not to be considered as a form of filariasis, but whether Castellani's bacillus prove the true etiological agent or not, it is imperative that no effort be spared to elucidate the casual factors of the disease and demonstrate the manner of its dissemination. It is a point of some interest to note that sleeping sickness in Uganda shows but little tendency to extend beyond the neighborhood of Victoria Nyanza, and its infectivity is apparently not great, and according to reliable observers it is not readily conveyed from one person to another. But regarding its true pathology we yet remain almost entirely in the dark. Meanwhile certain villages are being almost wiped out by this scourge. We trust the home authorities will spare no effort in finding means and securing men for the solution of this very serious problem which most seriously imperils our position in one of the most favored regions of Africa.—*Medical Press and Circular.*

SOME IMPROVEMENTS IN THE METHOD OF LOCAL ANALGESIA.*

BY ARTHUR H. J. BARKER, F.R.C.S., OF LONDON, ENGLAND.

Several points must be borne in mind, among them the mechanical and physical difficulties in infiltrating all the nerves supplying an extensive field of operation. To inject the whole area so as to reach all its nerves would mean in many cases the use of much more of the toxic drug than is necessary, and in some cases so much as to be dangerous.

The author refers to certain observations by Braun, of Leipsic, on a method of overcoming the drawbacks incident to the usual mode of producing local anesthesia. This method is based upon the old experience that *anything which retards or diminishes the circulation of the blood in a part enhances the potency of the analgesic agent*. Experiments were made with Adrenalin, a very small quantity of which was injected with B-eucaine (or cocaine) into the author's own arm, and subsequently into the arms of numerous patients. After the lapse of twenty minutes the part was quite blanched and wholly insensitive to pain, remaining so for about two hours. Adrenalin, alone, used in this way had no analgesic effect, while the results of the use of the combined solutions of B-eucaine and Adrenalin were far superior to those produced by B-eucaine alone.

The most convenient way to prepare the solution is as follows: Powders each containing 0.2 gramme (3 grains) of B-eucaine and 0.8 gramme (12 grains) of pure sodium chloride are kept in thick glazed paper, ready for use. When needed one powder is dissolved in 100cc. ($3\frac{1}{2}$ fluidounces) of boiling distilled water, and 1cc of Parke, Davis & Co.'s Solution Adrenalin Chloride is added when the fluid is cool. The solution is left in the Jena glass beaker in which it has been boiled, which is carefully covered and placed in a vessel of warm water to keep it at blood heat.

The injection is made by means of a simple syringe of glass and metal of 10cc. capacity, with rubber washers, which can be sterilized by boiling.

To illustrate his method the author describes in detail the performance of an operation for the radical cure of inguinal

*A clinical lecture delivered at University College Hospital, London, July 11, 1903.

hernia. The hernia is first reduced, and the index finger is thrust into the external ring as far as possible. Along this finger the needle is entered and the inguinal canal is filled with 10cc. of the solution. An endeavor is made to inject it all around the neck of the sac so as to reach the genital branch of the genito-crural nerve. The needle is then entered at the external end of the line of incision in the skin, and is made to infiltrate the *superficial* layers of the latter down to the root of the scrotum, making the resulting wheal at least an inch longer at each end than the incision is to be. Injections are then made at a point half an inch to the inner sider of the anterior superior spine of the ilium, the needle being thrust towards the ilio-inguinal nerve, and at a point about one inch above the middle of Poupart's ligament where the ilio-hypogastric nerve is most conveniently met. Then the thigh is flexed and another syringeful is injected along the ramus of the pubis and the root of the scrotum or labium.

It is necessary to wait twenty minutes after the last injection for the full effect of the Adrenalin to develop. The whole field of operation should be blanched and insensitive to pricks, but not to touch—analgesia, not anesthesia. The incision may then be made with confidence that no pain will be felt. The absence of oozing of blood is noticed. Only large vessels bleed at all.

Success depends upon a mastery of the principles, and practice in the details of the method. It is not enough to inject the fluid under the skin generally; due regard must be had to the position and course of the nerves supplying the structure to be dealt with. The Adrenalin compound, by slowing the circulation through the part, prevents the anesthetic agent from being rapidly washed away. The writer has used this method in thirty operations including the radical cure of hernia, strangulated hernia, orchidectomy, removal of varicose veins, psoas abscess, loose body in knee, tumor of neck (actinomycosis), colotomy, Thiersch skin grafting, and cystic adenoma of the thyreoid.—*Lancet*, July 11, 1903.

AN INTERESTING CLINICAL CASE.**DR. MATIAS DUQUE.**

Director of the San Antonio Hospital, Section of Hygiene.

X., a white woman, 22 years of age, was taken into the hospital on account of syphilitic skin disease (roseola papula); a blennorrhagic vaginitis of most violent description with strong congestion of the mucous membranes of the vagina. The latter was of violent hue, somewhat brittle, and yielded abundant secretion of a greenish yellow pus, which showed under bacteriological examination abundant colonies typical of gonococcus, diplococcus and other varieties of bacteria. The gonococci infection reached to the neck of the uterus whose tissues suffered from the same degeneration as the vagina. Above the mouth of the neck—from which a greenish yellow and somewhat thick pus oozed—was a syphilitic ulcer the size of a dime, clean at the bottom, livid in color and rather deep.

Upon careful examination, the patient was found to be pregnant in the third month; and, from the start, was subjected to energetic treatment as a serious case.

Under the treatment employed she improved rather well; but, though the blennorrhagia was not cured, the syphilitic manifestations of the skin disappeared, and the ulcer at the neck improved somewhat, until confinement which took place at the eighth month, five months after her admission.

The confinement was normal. However, the patient was attacked by a great flux and suffered a complete laceration of the right side of the neck; an incomplete laceration of the left side; an incomplete laceration of the rear wall of the vagina; and a two-thirds laceration of the perineum. The placenta was removed at once; ample warm washes of a 1% solution of permanganate of potash were applied and the uterus was stimulated by massage, but remained inert. All this was reported to me by the house physician. I arrived at the hospital four hours later in company with the well-known gynecologist, Dr. Mendez Capote, who, upon having examined the patient, decided to sew up the lacerations. He washed out the vagina and uterine cavity completely; adjusted with the scissors the edges of the lacerated tissues; sewed up the wounds and touched the ulcer at the neck with the cauterizer;

then he gave another wash and plugged with iodoform gauze.

When the patient was on the operating table, she had fever, 38.4° C. At 5 p. m. the fever was at 39° ; then the vaginal plug was taken out and a great intra-uterine wash of a one-half per cent. solution of permanganate was applied very hot in a quantity of five liters. The fever was at 40° throughout the night, and washes were given every four hours.

The following day, at 8 a. m., temperature 40° , same local treatment. The fever lasted all day, falling to 39° by the wash, but rose again to 40° .

The day thereafter, fever at 41° ; same treatment with more vaginal washes of bichloride of mercury, before the uterine washes; the fever keeps on at 41° .

On the next day at 8 a. m., (temperature at 41.5°), I took out the stitches made on the day of confinement, washed well both uterus and vagina, dried the latter with carbolated cotton and conveyed into the uterine cavity eight grammes of pure Hydrozone, taking care that this liquid should flow towards the vagina, into which I poured about 60 grammes of the same liquid and drained the uterus with simple gauze saturated in Hydrozone, while the vagina was drained by the same means.

From that time on the fever declined slowly, and at 6 p. m., it was apyretic. The fever did not return and the patient's cure proceeds without further difficulty.

This case, which is interesting by itself, proves of great value in setting forth two points; viz.:

1. That, although the intra-uterine injections of pure Hydrozone may be dangerous, it can be applied if care is taken to keep the neck dilated as much as possible.

2. That in this case the superiority of Hydrozone over the other treatment of puerperal septicæmia, in connection with gonococcia, is indisputable; and that this splendid result should encourage repetition of its application.*—Abstract from the *Revista Medica Cubana*, April 15, 1903.

*The son of the patient suffered from blennorrhagia in the eyes. He was treated with $\frac{1}{4}$ per cent. solution of permanganate and instillations of pure Hydrozone twice daily, alternating with cauterizations of 40 per cent. solution of nitrate of silver; and he kept his sight.

THE SIGNIFICANCE OF URINALYSIS IN PREGNANCY; WITH SPECIAL REFERENCE TO ECLAMPSIA.*

BY ROBERT N. WILLSON, M.D., OF PHILADELPHIA, PA.

Opinions are so various at the present time with regard to the significance of urinary conditions during pregnancy, and especially with regard to the presence or absence of glucose or albumin, that a few pertinent cases in the experience of the writer have led him to briefly discuss the following questions:

1. What are the customary findings of urinalysis during a (clinically) normal pregnancy?
2. What variations from the normal may be noted, and what is their significance?
3. What dependence can be placed upon urinalysis as a warning of impending eclampsia?

The first question is by no means the most easily answered of the three, if one bases his reply upon the statements gathered from the current discussion of the subject by those who do purely obstetrical work. There seems to be as much diversity of opinion as to whether albumin or glucose may be found in the urine of a strictly normal pregnancy, as there is with regard to the origin of these substances. One author states that a trace of either albumin or glucose has no significance; while another assures the student that the appearance of either renders the prognosis grave for the mother and child.

It may be stated as a general working rule, none the less, that the urinary picture which is normal for the ordinary conditions of life is also indicative of normal conditions in pregnancy. Just how far this principle will maintain itself will be discussed at a later point,

Question 1 then narrows itself down to the subquery, Can there be variations from the ordinary, normal urinary picture which will admit of a clinically normal labor?

The answer must be a prompt one in the affirmative. Not only do parturient women sometimes give normal birth to healthy children in spite of urinary conditions indicative of possible misfortune, but sometimes the urine in such cases appears of such a character, chemically and under the microscope, as to promise a rapid fatality if the labor be not at once terminated.

*Read before the Philadelphia County Medical Society, June 10, 1903.

The specific gravity may be constantly depressed, the quantity of urine may be large or small, the excretion of urea may be diminished or increased; or there may be albumin, glucose, or both, present in large or small quantities; and still the labor may be an easy one, and clinically normal for mother and child in every respect.

A more frequent picture is that of a pregnancy during which (especially when the gravid womb is occupying considerable space in the abdominal cavity) a so-called trace of glucose or of serum albumin is detected by the ordinary tests. Still more frequent, and such a common occurrence as to cause no surprise when noted, is the presence of delicate quantities of serum albumin, detected only by careful methods and confirmed by control tests.

In a series of nearly 1,800 urinalyses made by the writer during the past two years, a considerable number of the examinations were in the cases of women in the later stages of pregnancy. Of the entire number of specimens of urine obtained from parturient women, only a comparatively small percentage (22 per cent) was entirely free from albumin and sugar; while in no case in which glucose was noted was albumin absent. In nearly 60 per cent at least a trace of albumin could be detected. In many of the cases the albuminuria began to manifest itself about the fifth month. In some it was not present until the last days before delivery. In a few it became evident directly before the appearance of active labor pains, its presence being discovered, at times, only by accident, if the term may be fairly employed.

When glucose appeared in the urine of a subject known to have not previously shown glycosuria, the occurrence, as a rule, took place at some time between the beginning and the end of the last month of pregnancy. Occasionally there was a trace of glucose present throughout the pregnancy, often disappearing completely after the birth of the child.

In no case in which, in the absence of other indications of acute or permanent renal change, small quantities of either serum albumin or glucose (not evident previously) were found present during pregnancy did the urine fail to regain its normal character shortly after the birth of the child, except in the few cases in which fatal eclampsia supervened.

In the majority of cases the urea elimination was that of the normal woman under ordinary circumstances other than those of child-bearing. Its excretion varied with the individual, and especially in relation to the diet and exercise. Occasionally the quantity excreted appeared persistently high, and just as often exceedingly low; but with no evident bearing upon the otherwise normal outcome of the case.

When the microscopic sediment indicated positive renal change, the beginning of this change positively appeared to have antedated the pregnancy, and as a rule continued after the puerperium as a permanent condition. Exceptions were noted even to this rule, however, and the following case furnished rather a striking example of the kind:

Mrs. W. E. T., aged 21 years, was seen by the writer in her seventh month of pregnancy on March 19, 1901. Her father had died of trauma, and the condition of his kidneys was unknown. Her mother had chronic nephritis, and died from acute meningitis.

The patient has always been strong and well except for two attacks of pneumonia, followed on both occasions by a complete recovery. Since then she had always been active. Menses regular; no leucorrhea. She had been married one year, her last menstrual flow having occurred seven months before. No headache or dizziness. No swelling of the face, feet or hands. On physical examination, she was found well nourished, her skin healthy, no jaundice or edema. Chest absolutely negative. Heart sounds all clear and regular. Arteries soft. The abdomen was that of advanced pregnancy. On examination, the gravid uterus was found to contain a living fetus, in the L. O. A. position. The pelvic measurements were all ample and normal. The *urinalysis* on March 21st resulted as follows: 1011, acid, pale straw in color, slightly turbid, sediment scanty, white and flocculent; albumin none, sugar none: microscopically, full of squamous and cylindrical cells, no casts, few leukocytes, no mucus, no crystals.

A request was made during the following week that another specimen be sent, for the reasons that the specific gravity was so low and because there was doubt in the writer's mind as to the estimated time of the pregnancy.

On March 26 the *urinalysis* was 1013, acid, pale, straw

color, albumin a decided trace, sugar none, microscopically much squamous and cylindrical epithelium, many leukocytes, no casts, much mucus, no crystals.

An *examination* the following day (March 27) showed, 1027, albumin none, sugar none, heavy phosphate clouding with heat, microscopically full of uric acid crystals, no caste, much squamous epithelium, few leukocytes, considerable mucus.

The patient felt at this time strong and well. Fetal movements distinct. During the next month the urine remained negative except for a very high specific gravity, a urea output of 2.8-3.6 gms. per 100 cc., occasional showers of uric acid crystals in the freshly voided urine, and once a heavy sediment of calcium oxalate crystals. No albumin, no casts.

On April 15 the patients feet began to swell. Although requested, the urine was not obtained until 10 days later, when the urinalysis showed, 1030, albumin 6.6 gms. per liter, sugar none, urea 2.51 gms. per 100 cc. Microscopically full of small hyaline and hyalogramular casts, many leukocytes, no renal epithelium, no crystals.

On the following day the albumin still measured over 6 gms. per liter, and there were present many granular casts, and much renal epithelium, although the patient had been in bed and on a liquid diet for 2 days. Periodical pains began to be evident during the early evening of this day, gradually increasing, and after a labor of 12 hours the head of the child was on the perineum, and was delivered naturally, with a slight laceration. The latter was repaired at once and both mother and child advanced through a normal puerperium.

At no time in this case was there a suspicion of renal involvement, up to the time of the single appearance of albumin in quantity one month before term, and followed by its complete disappearance. Its reappearance at some time during the last ten days before the birth of the child; its presence in large quantities, and above all, the indication of serious renal change by the microscopic sediment; all made labor a dangerous prospect, and raised the question as to the best course to pursue. The event proved that sometimes Providence allows us to rush on in safety, when in a different mood we would counsel prompt artificial termination of the dangerous condition.

This will be recognized as a case in which every feature of

the urinalysis indicated danger of the much dreaded eclampsia, and as one which, none the less, passed on to normal labor and delivery. The urine one month later was nearly free from albumin (faintest trace) and casts, but unfortunately the patient moved away from this vicinity and has disappeared from view.

It may be briefly stated that cases have been noted in which the urine has contained as much as 4 per cent. or 5 per cent. of glucose, during pregnancy, and yet the woman has gone safely through to term and successful delivery. The same must be said of such instances as of the case just cited, that the probabilities are all against a favorable outcome. We are, however, more intimately concerned with the subject of albuminuric eclampsia, and will pass over other considerations for the present. It will be sufficient to say that cases are constantly being noted in which albumin is present throughout the course of the pregnancy; others in which it appears early or late in its course; and in one, or both, or neither, there may be casts and renal epithelium in abundance, and still there may be no departure from the normal in the labor. In concluding his comment on this question, and partly by way of discussing Question 2 (What variations from the normal may be noted and what is their significance?), the writer would simply say that most cases of pregnancy present minute traces of serum albumin in the urine, and that these can be detected if sufficient care be devoted to the search. Probably these traces are the result of pressure by the gravid uterus and of the consequent congested state of the kidneys. Sometimes there seems to be actual renal disease, and the ultimate cause may never become evident. Such cases must be placed in the category with those other problems that are too deep for our understanding; and when they go on to normal labor, we should be thankful for the occurrence and content to accept the gift of Providence. Too often the urinary indications of renal involvement are verified by the dreaded onset of eclampsia, and too often also in such cases the opportunity is afforded on the autopsy table to ascertain the extent of renal damage.

Much stress has been laid by some writers upon a diminution in the elimination of urea in certain cases of pregnancy,

both as an indication of impaired renal activity and of the danger of eclampsia. Certain is it that in most pregnant women the specific gravity of the urine is high (1025 and upward), and the urea output correspondingly large, or to state the sequence of affairs more accurately, the urea is excreted in abundant quantities, and the specific gravity is correspondingly high. The true significance of the variations in the elimination of urea must be estimated as in all other conditions, viz.: When the kidneys are doing their proper share of work, they will excrete a normal amount of urea; when hampered or diseased, their urea output is diminished and sometimes becomes exceedingly scanty. The doubtful claim that a decided fall in the amount of excreted urea is ever a dependable indication of oncoming eclampsia, will be referred to again in connection with the cases cited under Question 3.

The highest importance must always be attached to the presence of renal epithelium in quantity; also to tube casts, especially when in large numbers, and when of the granular, blood or epithelial varieties. Normal urine always contains a few hyaline casts, which may be found if looked for with care. No normal urine contains many of the latter, however, and normal kidneys are never responsible for casts of the granular or epithelial types. The microscopic sediment in the majority of instances furnishes our most accurate guide as to the condition of the renal apparatus and its critical study should never be omitted from the urinary examination.

It remains to state that sugar (glucose, lactose, etc.) may often appear in small quantities, and that when confined to such inconsiderable amounts it has little or no practical significance, at least in the light of our present knowledge. When glucose is present in pathological or in permanent form, it is interesting to note that there is present also, with few exceptions, some indication of renal change. We have yet to discover the real cause of the appearance of glucose even in diabetes, but we have learned clinically that diabetic glycosuria is usually accompanied by renal sclerosis, and that its urine contains a renal sediment; and we have learned that the association is such a close one as to be valuable clinically for diagnostic purposes. The rule holds equally well in the pregnant woman and the nonpregnant diabetic. The presence

of glucose, as already stated, is in itself by no means a grave sign, and in small quantities, unattended by signs of renal incompetency, can usually be ignored as far as concerns the outcome of the pregnancy. When it represents a diabetic condition, however, it assumes a new importance, furnishing the picture of a subject of a cachexia undergoing the greatest strain imposed by nature upon woman's vitality. Pregnancy under such conditions becomes a dangerous and questionable duty, instead of woman's trying but precious privilege.

In conclusion, Question 3—What dependance can be placed upon urinalysis as a warning against impending eclampsia?—raises again an all important and much mooted discussion. The writer has already cited a case in which the urinary condition indicated serious renal change, and yet in which labor was carried on with entire exemption from eclampsia. He remembers with vividness a second case in the hands of a prominent obstetrician in which the urine had always been found normal prior to pregnancy. Unfortunately the urinalysis was omitted during the course of the pregnancy owing to confidence in the integrity of the renal function; and this patient died in eclamptic convulsions.

A third case is still under the care of the writer and is interesting in that it presents the picture of a urine, absolutely normal on the evening prior to the beginning of labor; a total absence of a history of nephritis, and yet a series of convulsions beginning while the fetal head was on the pelvic floor, and continuing into the postpartum stage after an instrumental delivery. The following presents merely an outline of the case:

Mrs. J. F. E., aged 26 years, family history negative. One child living and well, forceps delivery, after a long but otherwise uneventful labor. Seen for the first time by the writer on March 14, 1903, at which time the patient considered herself 6 months pregnant. The abdomen was very large, but the patient stated that this was also true of the first pregnancy. The right leg was swollen, also the right labium, the veins of which and of the right vaginal wall were swollen and tortuous. This condition was greatly relieved in the recumbent posture, and was evidently due to pressure in the abdominal cavity. The vertex was distinctly felt on vaginal examination, approximately in the L. O. A. position. Pelvic measurements were all normal.

The urine at that time was examined and showed: A. M., 1.010, acid, amber, clear, sediment scanty, white, flocculent; albumin faint trace; sugar none; urea 1.22 gms. per 100 cc. microscopically, full of squamous cells, no renal sediment, few leukocytes, no crystals. P. M., 1.020, acid, etc., albumin, faint trace, sugar none; urea 2.80 gms. no renal sediment, full of squamous cells.

From this time until May 18 inclusive, the urine was examined weekly. On the latter date both the morning and evening specimens were examined. At no time during this period could albumin or sugar be detected. No casts, and no renal epithelium was present. The urea averaged 2 gms. per 100 cc., and on the last examination before labor began was 2.18 gms. On May 19 the writer was called because of colicky pains over the abdomen. There was some headache, and it was learned that the bowels had not been moved for 2 days. At this time the patient was supposed to be about one month from term, but the abdomen appeared so large that oncoming labor was suspected and the vaginal examination showed the cervix already dilating. After a long, slow labor of 12 hours the vertex was on the perineum. Convulsions suddenly supervened, following the second of which forceps delivery was carried out with the assistance of Dr. W. A. N. Dorland, and without injury to mother or child. The placenta was at once delivered with the hand in the uterus. An hour later a third convulsion took place, followed by a fourth, fifth and sixth. The urine drawn by catheter, showed the following: 1.012, acid, strong odor of decomposition; albumin 1 gm. per liter, sugar none; urea 1.18 gms. per 100 cc., considerable number of hyaline and hyalogramular casts, no blood, considerable renal epithelium.

The patient was bled, and then transfused into a vein with normal salt solution. She was then kept in a steam bath almost continuously for 6 hours, when the kidneys again began to take up their share of the work. Consciousness was not regained for 36 hours, though no convulsions occurred after transfusion.

The urine rapidly cleared up, until at the present time it is perfectly normal and the patient is free from evident impairment of the renal functions, and with no recollection of the ordeal.

Dr. Dorland has informed the writer of a case of eclampsia recently seen by him in which the urine was examined immediately before labor, and found to be normal, but in which convulsions appeared and death ensued before morning.

We have studied cases, therefore, which have presented urinary pictures of seemingly grave import, but in which labor has followed a normal course; and, on the other hand, cases of dangerously obstinate and even fatal eclampsia occurring in spite of kidneys which, up to the moment of labor, were supposedly healthy. As a result of our study we are confronted with the question, Can eclampsia be accurately foreseen and avoided by the careful attendant upon the case; and, does albuminuria or even a renal sediment predict with any degree of accuracy parturient or puerperal eclampsia. By way of answer the following conclusions seem warranted at the present time:

1. Careful urinalyses should be carried out in all cases of pregnancy at frequent intervals and with increased frequency as term is approached.

2. The most dependable indications of impaired renal function, and of probable eclampsia have been shown by general experience to be the presence of decided quantities of serum albumin, the diminution of the eliminated urea and the presence of a microscopical renal sediment (casts, renal epithelium, blood, etc.). The character of the latter, when accompanied by the well-known clinical signs of nephritis, always constitutes a working basis for an estimate of the probability of imminent danger.

3. Even if the urine appear perfectly normal the possibility of eclampsia must be considered, especially in young women. Eclampsia in such cases is of equal severity with that of cases in which the urine has given due warning of impaired renal functions.

4. When eclampsia supervenes upon labor in a subject with previously (apparently) healthy kidneys, the tendency subsequently is toward a return to normal renal functions if the patient survives. This circumstance would seem to indicate still more strongly that the kidneys may actually have been normal up to the time of a temporary embarrassment and suspension of function.

5. Although we fail to find in urinalysis an unerring indication of the behavior of the case, it is a safeguard we can ill afford to neglect. Until the nature and pathogenesis of uremia and eclampsia are more thoroughly understood it would appear to be our best guide to safe treatment and accurate prognosis.

6. The prognosis seems to be vastly improved if eclampsia be combatted by generous bleeding, followed by venous transfusion with normal salt solution. These measures reduce and dilute the poison in the circulation and relieve the cardiac distress. Free diaphoresis and purging are of course indicated.

CORRESPONDENCE.

TO THE MEMBERS OF THE MEDICAL PROFESSION.

At a conference of the officers and Advisory Committee of the American Congress on Tuberculosis, held in New Orleans, May 7, some important changes were made in the plans previously announced.

The previous plans of the Council to hold the Congress in St. Louis, in 1904, were changed, many considerations favoring Washington, D. C., as the place of meeting. A change of time of meeting was also made to April 4, 5, and 6, 1905.

As there is to be an International Congress on Tuberculosis, at Paris, in 1904, it was deemed possible that some foreign delegates might be prevented from attending the Washington meeting on that account. The plan and scope of the American Congress being in reality international, the postponement of the meeting to the spring of 1905 will give the management ample time for perfecting details upon which the success of the Congress largely depends.

One committee has already been arranged to have charge of the section on Pathology and Bacteriology, as follows: Dr. Simon Flexner, chairman; Dr. William H. Welch, Dr. George J. Adami, Dr. Thebald Smith, and Dr. F. F. Wesbrook. Committees in charge of other sections or departments will be announced later.

Dr. George Brown, of Atlanta, Ga., is practically the executive officer of the Congress, and all who desire to present papers before the Congress should apply to him. As there seems still to be a doubt in the minds of many physicians concerning the result of the vote of the New York meeting, which in 1902 adopted a new and definite plan for the next Congress, we beg to assure our readers that the new plan is being followed in both letter and spirit by Dr. Brown and the other officers elected at that meeting.

Any circulars or communications purporting to be in the interests of the American Congress on Tuberculosis, which do not appear over the name of Dr. George Brown, as Secretary, do not relate to the Congress which was arranged last year, and the organization of which has already so far advanced as to insure its success from every point of view.

DANIEL LEWIS, M. D.,

President of the American Congress on Tuberculosis.

The Diagnosis of Gastric and Duodenal Ulcer.—The diagnosis of ulcer of the stomach or duodenum is inferred from various symptoms and signs, none of which, either individually or collectively, afford irrefragable proof of the existence of this lesion. Epigastric tenderness, for instance, is often conspicuous by its absence, presumably owing to the ulcer being situated on the posterior wall, inaccessible to ordinary methods of investigation. According to Dr. Mendel, of Essen, valuable confirmatory evidence may be obtained in doubtful cases of the simple procedure of tapping lightly with a percussion hammer over the epigastrium, with the thighs flexed on the abdomen in order to secure muscular relaxation. In the healthy individual no painful sensation is produced by the tapping, but in presence of an ulcer percussion gives rise to more or less acute suffering, most marked just over the site of the lesion. Even ulcers on the posterior wall of the stomach may be detected in this way, the vibrations being transmitted through or along the superjacent tissues. It is even possible to outline the diseased area by marking the limits of the painful sensation. Dr. Mendel points out that ordinary percussion may determine disagreeable sensations even in normal subjects, but this is not the case with the light vibrations imparted by the hammer.—*Medical Press and Circular.*

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EDITORIAL.

THE DOCTOR'S LIBRARY.

An old saying is, "Tell me what company you keep and I will tell you what you are." The truth of this is obvious and we daily see its application in a variety of ways. We could say with equal truthfulness, "Show me a doctor's library and I will tell you what sort of physician he is." The very question of the doctor's library is one on which but very little has been written and it is time that something was said upon it. But in order to give it proper consideration we must take into account the various kinds of doctors' libraries which are seen as well as consider their owners. We find that the one is, as a rule, characteristic of the other and no mistake can be made by anyone who is gifted with any powers of judgment and discrimination.

In the first place we have the library which consists of but a few books apparently of a prehistoric age which have become antiquated beyond hope of redemption, and whose only leading quality is uselessness. Such libraries are much more numerous than progressive members of the medical profession would imagine. We have seen them very ostentatiously displayed on poorly made shelves nailed to the wall of a dingy

office, breathing of squalor and fit environments for the owner who seemed to vie with the books in his own filthy condition. He did not consult the few dilapidated, old, musty books he had, trusting rather to an equally dilapidated experience acquired by an incompetent and ignorant mind. And still such individuals have their adherents and deluded admirers.

A second variety of medical library is that which is large and is composed of many old books with here and there a modern one, but all so arranged that their owner cannot find any particular one without making a complete inventory of it. After doing this he forgets what books he has and the same tedious process must be gone through again at the cost of much valuable time. It is for these that year-books are most valuable and they very properly discourage the bad habit of buying a lot of old junk which is of no value, but merely takes up a large amount of space and possess a bulk which never imposes upon him who is anything of a judge in such matters. The character of the physician who harbors such a hodge-podge is that of an individual who desires to make a great show at a very slight expense of money or work. He gets on in an easy manner and it is no difficult matter for an active competitor to rout him. We see such posing as authority, their position owing its strength to many books of doubtful authority which have never been read. These libraries and their possessors become well known and little respect is paid to the one or to the other.

In antithesis we have the library, large in size, containing all the latest and most expensive medical works. It is something magnificent and of the highest value to any one who desires to consult the latest and the best authorities. The best editions are chosen and the owner can point with just pride to his valuable collection. It, unfortunately, but too often happens that he has never read one and does not know the contents of his valuable tomes. He swells with pride when he exhibits his library, but is careful to keep the doors of his book-case locked, affording others naught but a look at the backs of what would otherwise constitute a magnificent collection. The owner of such a library is puffed up with a good opinion of himself, but shows his deficiency at every turn and is only known as the owner, but not the reader, of a large number of

fine books. He is soon gauged at his true worth and it is but late when he discovers what a loss to him it proved to be to spare the bindings and ignore the contents.

We next have the library of the physician who reads. This is not very large, although of such proportions that he is supplied with what he needs. He reads and studies his books during leisure moments and profits by such reading. He does not care to possess a very large number of books, but those which he does have are the best that he can procure. He desires to have books for the good which they can do him. His aim is to know one author thoroughly rather than struggle with the diversity of opinions of a number. What he does learn he knows well and his knowledge so acquired serves him to the best advantage when he is in need of such information. He is very apt to inspire others with a certain amount of fear and respect, for we have all been taught to beware of the man of one book. He is an individual who is exact, but he is also very apt to run in one narrow groove and his ideas are so governed by his solitary author upon any one subject that he becomes narrow and prejudiced and his ideas lack broadness.

We now conclude with the library which is large, in which are to be found books often referred to and constantly in use. Books of reference and monographs are numerous, and new ones are daily added and thus form a continuous accretion. This forms the writer's library and the order in which everything is arranged testifies to his orderly ways and methods. It is here that we find the material which furnishes his bibliography, so valuable to the writer and to students. Many volumes are consulted, but they are invariably returned to their proper places so as to be easy of access at any moment. It is here that we can judge of the character of the owner of these books. It is also in such a library that we find files of journals neatly bound, and it is here also that we find the numerous book marks of stiff paper marking certain passages that have been or will be used. Such a library fully exemplifies Bacon's celebrated aphorism, "Reading maketh a full man; writing maketh an exact man."

Much more could be said on the doctor's library and it may be said with truth that he who reads his medical journals carefully is certain to possess a good library.

SOCIETY PROCEEDINGS.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting October 7, 1902.

JOSEPH COLLINS, M.D., President.

A CASE OF GENERALIZED SCLERODERMA.

Dr. B. Sachs presented a lady, 24 years of age, whom he had first seen six years ago with ordinary hypochondriacal neurasthenia. When next seen, last year, she stated that during the past few years she had noticed that the upper and lower extremities had begun to be stiff and more or less painful on movement. She was not aware at the time that there was anything especially wrong with her face. At present the face shows a very marked form of scleroderma, and she also has distinct sclerodactyly. Six months ago there was so much retraction of the upper lip, as a consequence of the retraction of the skin, that the gums were constantly exposed. The hands show marked tenseness and glossiness of the skin, attenuation and clubbing of the fingers and an apparent subluxation of the middle finger at the metacarpo-phalangeal articulation. An x-ray photograph shows that the latter is due to the wearing away of the bone under abnormal pressure. There is also a general scleroderma in this patient extending from the forehead to the middle of the abdomen. The lower extremities are only sclerodermatous in certain areas. There are also some areas of leukoderma. The speaker said that this woman had shown a certain amount of improvement under thyroid medication. She had taken as much as 18 grains a day without detriment, and had also had warm baths and exercises with the object of improving the condition of the integument and underlying tissues.

Dr. George W. Jacoby said that he had been one of the first to act upon Dr. Sachs' suggestion regarding the use of the thyroid extract, and he was convinced that this treatment accomplished something. About a year ago he had himself reported two cases, in children, in which the skin had become almost perfectly pliable as a result of thyroid treatment. The changes in the fingers had been very much more marked than in the case now under discussion. Of course, these pathological conditions did not retrograde. He did not think the pressure of

the retracting skin was sufficient to explain the marked bony changes observed. In his opinion, the thyroid treatment was the only one that held out any prospect of success, and it was particularly useful in children.

Dr. Joseph Fraenkel said he believed there were two types of scleroderma, the localized and the generalized. The latter appeared to him to be an expression of a rheumatic tendency. For the last four months he had had a case under observation which had done very well under anti-rheumatic medication, particularly the use of the salicylates. Ordinarily, the thyroid medication seemed to be the best method.

Dr. Joseph Collins said that he had had some experience with the thyroid treatment, and while he had observed improvement the results were not at all comparable with those reported by Dr. Sachs and Dr. Jacoby. All that he thought the thyroid did was to diminish the subcutaneous fat. This, of course, made the skin much more pliable over the affected area and reduced the mask-like appearance of the face. In his opinion, scleroderma was a disease of the spinal cord and of the sympathetic fibres and cells within the spinal cord. The symmetry, chronicity, course and termination were all explicable on this theory. He hoped soon to have an opportunity of making a post-mortem examination upon a marked and advanced case of general scleroderma. In that patient sensory changes were occurring, which pointed strongly to involvement of the conducting pathways of the spinal cord. As young persons have a marked accumulation of subcutaneous fat, and this fat could be very readily increased or diminished, it was easy to explain the good results just reported by Dr. Jacoby.

Dr. Sachs said that in the patient he had just presented there had been an extremely disagreeable appearance on the face a few months ago, resulting from the attenuated state of the nose, a part having very little subcutaneous fat; yet this part had very decidedly improved under the thyroid medication. He would be greatly surprised if scleroderma proved to be an affection of either the spinal cord or of the sympathetic system. The disease seemed to be diametrically opposite to two other diseases—acromegaly and myxoedema. He was inclined to think that scleroderma was possibly a general glandular affection involving not only the skin, but the subcutaneous tissues and even the bones.

A CASE OF MYOTONIA.

Dr. Edward D. Fisher presented a young man who had first come to his clinic about one week ago. The man was 24 years of age, an electrician by occupation. He was apparently well up to the time of enlistment in the Spanish-American war. Over one year ago the left foot began to twitch on attempting to walk. In February, 1902, the right leg became involved, and later the muscles higher up, even in the back. At present all of the muscles below the ribs become more or less contracted on attention. There is no loss of sexual power or loss of sensation. The electrical reactions are normal. On standing up there is a twisting of the body and spasm in the feet, the latter causing him to walk on the outer borders of the feet. The process had lately extended upward, so that there was now a mild affection of the muscles of the hands and arms. The diagnosis seemed to rest between myotonia and some functional disorder.

Dr. B. Sachs said he had had an opportunity of examining this man about two weeks ago, and had been impressed with the possibility of its being a hysterical condition. He had examined the muscles electrically, and had found them abnormal. There were distinct evidences of a myotonic reaction, a long continued wave, which started in one part of the muscles and spread up slowly between the electrodes. Moreover, with the object of excluding hysteria, he had at first applied a current which was very mild, not letting the patient know that he was doing so. As the current was gradually increased up to the point which should produce a muscular contraction this wave-like contraction was observed.

Dr. J. Fraenkel remarked that he had seen this patient at the clinic, and that Dr. J. Ramsey Hunt had been unable to obtain the myotonic reaction.

Dr. George W. Jacoby said that these cases emphasized the difficulty of making the differential diagnosis between myotonia and hysteria. He had presented a case of myotonia acquisita to the American Neurological Association. All of the myotonic symptoms were present, and there were the electrical and mechanical reactions characteristic of myotonia. A microscopical reaction, however, yielded results that were difficult to reconcile with this diagnosis. Dr. Jacoby said he had made a bad

prognosis. and had subsequently learned that the man, after winning a lawsuit against a railroad company, became perfectly well.

Dr. Collins thought if the diagnosis of hysteria major was to be made, there should be present more stigmata than merely myotonia.

Dr. E. D. Fisher said that the general aspect of the patient had led to the suspicion of a neurosis, but after careful examination the diagnosis of myotonia had been made. The electrical examination had been made last June, and at that time no electrical changes were observed. The man's appearance was certainly that of a neurotic individual.

RADIOGRAPHS OF A TUMOR OF THE BRAIN.

Dr. George W. Jacoby presented some X-ray pictures from a recent interesting case. He said that he had been taking these pictures in such cases for a number of years, but until now the results had been very disappointing. The diagnosis in the present case was a tumor of the brain in the mid-Rolandic region, and the patient had been operated upon about two hours ago. The tumor had been found in the position diagnosed, and corresponding to that indicated in the radiograph.

A CASE OF BRAIN TUMOR (?).

Dr. William M. Leszynsky presented a man, thirty-one years of age, first seen a few weeks ago. Ten years ago he began to have attacks of headache, followed by vomiting. At first there was only about one attack each month, but more recently they had recurred about once a week. Six months ago the headache became more intense, and was associated with vomiting and vertigo, and he was in bed for three weeks. On getting up he had diplopia, and three months ago he became blind, and since then had been unable to walk. There was now moderate general headache and vertigo. There was no history or evidence of syphilis, and no history of alcoholism or of infectious disease. Examination showed no tenderness on percussion over the skull. There was some rigidity of the muscles of the back of the neck; both pupils were dilated and immovable, not reacting to light or to convergence. Reflex winking was absent on the left, but well marked on the other side. There was paralysis of both right and left abducens

nerves, paresis of both internal recti and an inability to converge. Vision was completely absent in both eyes, and there was marked neuro-retinitis on both sides, but no choked disc. There was partial paralysis of the seventh nerve and of the orbicularis palpebrarum. There was an actual deviation of the tongue to the left. The grasp was good on both sides. There was no paralysis of the lower extremities, yet he was absolutely unable to stand. There was no apparent weakness of the trunk muscles. The case was presented for diagnosis. The question arose as to whether there was a tumor of the cerebellum originating in the vermis, or one that had extended to this part from the corpora quadrigemina. If the pyramidal tract was not affected, it was possible that there might be a secondary meningitis.

Dr. B. Onuf suggested that there might be a tumor of the pons.

A CASE OF TABES WITH MARKED BULBAR SYMPTOMS.

Dr. I. Abrahamson presented a man of forty-four years, seen at the clinic in the latter part of September. There was a history of marked alcoholism. The present illness dated back to last spring, when diplopia developed, quickly followed by ptosis and lachrymation. The man had lost thirty pounds since that time, and difficulty in mastication and in urination had developed, along with hoarseness and various paresthesiæ of the throat. The temporal arteries were tortuous, the patient was badly nourished and presented evidence of degeneracy. The Romberg symptom was present and the motions of the eyes were restricted. There was marked wasting of both temporal and masseter muscles, with greatly diminished reaction to both electrical currents. The optic nerve showed beginning white atrophy. The knee jerks and Achilles reflex were absent on both sides, while the bulbar reflexes were lively. Tactile sensibility was nearly normal. The chief feature of the case was the extensive cerebral and nuclear involvement. The case was evidently one of tabes with very marked bulbar symptoms.

DIFFERENTIAL DIAGNOSIS OF MULTIPLE SCLEROSIS.

Dr. B. Onuf presented a paper on this subject. He quoted from the literature to show that it was probable that this term,

multiple sclerosis, referred to a symptom complex representing most varied pathological processes. The diseases most apt to be confounded with it were diffuse sclerosis, pseudo-sclerosis, cerebro-spinal syphilis, general progressive paresis and a number of other diseases, such as tabes, ataxis paraplegia and transverse myelitis. Diffuse and pseudosclerosis had a symptomatology so similar to that of multiple sclerosis that he did not feel the differential diagnosis could be clearly made. The multiplicity of the lesions of cerebro-spinal syphilis and the recurrence of the symptoms after intervals of comparative freedom from them bore a close resemblance to multiple sclerosis. It was evident, therefore, that the diagnosis must be founded on a complete clinical picture rather than on one or two individual symptoms. The value of antisymphilitic treatment was great as a diagnostic aid, but the results were not wholly reliable, particularly when marked improvement was not noted within a period of about two weeks. Spasticity was just as frequently observed in syphilis and the intentional tremor he had seen very typically developed in a case of undoubted cerebral syphilis. Fairly developed nystagmus pointed very strongly to cerebral syphilis as against disseminated sclerosis. Scanning speech was a strong symptom in favor of disseminated sclerosis as against syphilis. There were two symptoms which he considered of great importance: (1) the facial expression, and (2) an emotional state associated often with marked euphoria. These two symptoms were relatively rare in syphilis. Optic neuritis was present in a large percentage of cases of multiple sclerosis, and was often the only symptom in the early stages; however, optic neuritis was very common in cerebral syphilis, though it was more apt to be attended by retinal hemorrhages. The fact that multiple sclerosis was often ushered in by some acute disease was a point of some diagnostic importance. The speech disturbance in general progressive paresis was often quite marked; indeed, this affection should not often be confounded with sclerosis. The number of spinal diseases that might be simulated by multiple sclerosis was very great. In doubtful cases the presence, besides the spinal manifestations, of symptoms pointing to multiple cerebral involvement would speak in favor of disseminated sclerosis, as would also the symmetry and regular distribution of the

spinal symptoms. The speech of bulbar palsy might be very much like that of multiple sclerosis, and the patient might also be distinctly emotional.

Dr. Fisher thought multiple sclerosis was most likely to be confounded with cerebral syphilis and general paresis, and yet it was only at certain stages that even here any difficulty existed. The tendency to stupor and attacks of prolonged sleep, and the ocular palsies were characteristic, and were not observed in insular disease. In general paresis the flattening of the face, the tremor and the articulation were quite similar, but the mental state was quite different. At times multiple sclerosis might be confounded with hysteria. The disease being very slow in its progress years might elapse before the true diagnosis of insular sclerosis could be made. It should be borne in mind that insular sclerosis sometimes occurred in young people, at the age of sixteen or eighteen years, a point of differentiation from cerebral syphilis.

Dr. Onuf agreed with Dr. Fisher that the tendency to somnolence was ordinarily a strong symptom in favor of syphilis, and admitted that it was sometimes difficult to distinguish the disease from hysteria.

ARTERIAL DISEASE IN COMPARATIVELY EARLY LIFE.

Dr. E. D. Fisher read a paper with this title. He said that if one had not established one's self in some definite line of work by the age of forty, one would rarely succeed. This was the law of life. Having excluded syphilis, kidney disease, diabetes, alcoholism, and old age, there would still be a number of cases of arterial disease having a different etiology. He was of the opinion that cerebral hemiplegia was more than ordinarily common at the present period of our national development. There was an intensity in the pursuit of an object in the Anglo-Saxon race not present in the Latin races; this led us to a very large consumption of tissue. He believed that the so-called "strenuous life" led to fatty degeneration of the cardiac and arterial muscular tissue. If this view were correct, then the means of prevention were obvious and important. Our social system in the large cities was one of anxiety and overwork. There should be less straining after living, as is the case with the very rich, and a stronger desire for culture and moderation.

Dr. W. B. Noyes raised the question as to whether in the treatment of so many diseases of the nervous system with strychnine physicians were not committing a grave error. The effect of this drug on the arteries was not closely studied, and it had occurred to him that in cases like those described in the paper, in which there was, in his opinion, arterial disease, the persistent use of a drug like strychnine, which increases the arterial pressure, was actually harmful and more than counter-balanced the beneficial action of the remedy upon the peripheral nerves. He believed that many of those present could bear him out in the statement that iodide of potassium frequently benefited many cases in which there was no syphilitic taint, probably by its effect on the vascular system. He would like to hear from others regarding this view that strychnine and iodide of potassium are to a certain extent, antagonistic in their action on the vessels.

Dr. Leszynsky said he could not agree with Dr. Fisher in the contention that the so-called strenuous life produces cerebral and arterial degeneration unless this was accompanied by alcoholism, syphilis or some other toxic cause. He had never seen a patient under forty years of age with a cerebral hemorrhage or endarteritis unless there was some discoverable cause which would lead one to the belief that such conditions had previously existed.

Dr. Sachs said it was interesting to consider whether there was really arterial disease in early life sufficient to lead to apoplectic attacks. Personally, he could not recall a single case of cerebral hemiplegia which was not due to arterio-sclerosis, syphilis or embolism, or was the accompaniment of renal disease. There was only one other vascular degeneration occurring early in life, i. e., a fatty degeneration of the artery, and which explained the very early apoplectic attacks in children. When he had been able to exclude embolism, renal disease and syphilis he had always come to the conclusion that the case was one of early arterio-sclerosis.

Dr. Joseph Collins said that he found it very difficult to talk upon arterial disease—not sclerosis. He was thoroughly convinced that chronic degeneration of the tunica media, arterio-sclerosis, was a disease of the strenuous life, and that alcoholism, rheumatism, syphilis and the so-called metabolic diseases

had very little to do with this. A deficient heredity was one of the contributing causes. Another was chronic indigestion of any kind, and a third worry with work. These were more potent causes of arterial degeneration than syphilis, alcoholism and bad habits. The last named conditions caused periarteritis and endarteritis. A second great class of cases was dependent upon infections; some would put these as the first and more important class. We had been taught as students that arterio-sclerosis was a disease occurring in those past fifty, but he maintained that this was not true, and that when the disease began at that time it was nothing more than a natural process at that age. A person of sixty-five or seventy years of age becoming ill with an infection like pneumonia usually had the disease in an exceedingly mild form. He would further contend that arterio-sclerosis was, at the present day, the scourge of humanity, and that there was no organic disease of the nervous system that could compare with it in its effect upon the production of disease.

Dr. Leszynsky thought the last speaker had begged the question with regard to young subjects. If the strenuous life reacted upon digestion and interfered with assimilation it caused an intoxication or an infection, and in this way set up an arterio-sclerosis. He did not think any proof could be adduced to show that the strenuous life alone produced arterio-sclerosis.

Dr. Fisher, in closing, said that a man over forty years of age would rarely start out in a new line of work, although he might continue to do much very good work in old channels up to quite late in life. If he had understood the remarks of Dr. Collins, he did not think their opinions were very much at variance on this topic. By arterial disease he meant any morbid condition of any part of the arteries.

Treatment of Pleural Effusion. Henry Waldo, since using with success a dressing soaked in a saturated solution of common salt as an application to joints affected with osteoarthritis, has tried the same plan of treatment in pleurisy with effusion of clear serum. The results have been most happy.—*Jour. A. M. A.*

MELANGE.

The American Congress on Tuberculosis—

To the Members of the Medical Profession—The President of the American Congress on Tuberculosis, to be held in Washington, D. C., April 4th, 5th and 6th, 1905, announces Dr. Alfred Meyer, of New York City, consulting physician to the Bedford Sanitarium for consumptives, chairman of a committee in charge of the section on sanitarium treatment of tuberculosis. It is probable that the climatic, and other methods of treatment will be comprised under the work of this committee.

GEORGE BROWN, M. D.

Secretary American Congress on Tuberculosis.

Mississippi Valley Medical Association.—The twenty-ninth annual meeting will be held in Memphis, Tenn., "The Hub of the South," October 7, 8, 9, 1903, under the Presidency of Dr. Edwin Walker. This is the first meeting to be held in that attractive city, and there is every indication that it will be well attended and that the programme will be most interesting to the rank and file of the profession. A number of papers have already been promised by eminent men of the valley upon subjects of a general nature, which will prove of interest. The Address in Medicine will be delivered by Dr. Robert H. Babcock, of Chicago, the eminent clinician and author, and the Address in Surgery by Dr. Ap Morgan Cartledge, of Louisville, whose brilliant work in surgery is so well known to the profession.

An endeavor will be made to include upon the final programme only the names of those volunteers for papers who can reasonably assure us that they can be in attendance. This is necessitated by the number of papers which have been read by title at previous meetings. Titles of papers must be sent the Secretary not later than September 1 to obtain a place on the programme.

Information as to headquarters and hotel accommodations can be had by addressing the Chairman of the Committee of Arrangements, Dr. John L. Jelks, Second and Jefferson Streets, Memphis, Tenn. Henry Enos Tuley, of Louisville, Ky., is the Secretary.

BOOK REVIEWS.

The Neurological Practice of Medicine. A Cursory Course of Selected Lectures in Neurology, Neurology, Psychology and Psychiatry; Applicable to General and Special Practice. After the Author's Class-Room Methods as a Teacher of Students. Designed for Students and General Practitioners of Medicine and Surgery. By CHARLES H. HUGHES, M. D., 8 vo. pp. 417. With 177 illustrations. [St. Louis: Hughes & Co. 1903. Price, \$3.00.

The Neurological Practice of Medicine is a cursory course of selected lectures, from an eminent source of clinical and lecturing experience, on the essential features of Neurology, Neurology, Psychology and Psychiatry applicable to the general and special practice of Medicine. The book is plainly and forcefully written in the author's well-known impressive and succinct style. Many of the pages of the book are peculiarly fascinating and eloquent, as well as accurately descriptive and scientific.

The style of the author in the amphitheater reappears in this remarkable book, as those who have sat under his clear and original teachings will discover in the reading of the several chapters.

The fruitful results of thirty years of extensive clinical experience over a portion of the vast fields of neurology and psychiatry are presented in this valuable book.

Preliminary essential definitions presented in new and forceful manner and a discussion of the neurones and the nerve cells, physiologically and in relation to disease, occupy the six first chapters of the book. Here disease changes and the relations of morbid neurones to distant diseases, are given new prominence and force.

Two chapters are devoted to the elucidation of head heat in brain disease, clinical cerebral thermometry and cephalic galvanization and practice, and to the alterations of the temperature sense in diagnosis and practice.

The discussion and description of extra-neural or ad-neural nervous disease, and systematic states, leading to, proceeding from or blending with nervous disease, malaria, erythrocytes, thermasia, thermasthesia and their effects on the neurones, etc., are included in two additional and highly instructive chapters for the general, as well as special practitioner in any department of clinical medicine.

Instruments of precision in diagnosis and practice are included in several interesting illustrated working chapters, embracing valuable diagnostic data and descriptions.

The chapters on ascending and descending degeneration, the reaction of degeneration, Waller's law; its diagnostic significance, how to discover this condition, its uses and applications in practice, are exceedingly instructive.

In other chapters the evolution of the neuraxis and Nature's building of a brain and spinal cord, and the history of evolution of the brain, are given with appropriate and novel illustrations.

The chapter on electricity and electrical appliances is a short, plain, and practical presentation of this feature of efficient neurotherapy, worth the price of the book.

In another chapter the dura mater, its sinuses and diseases, is discussed in a manner within the comprehension of a tyro and yet about all the ground is well covered.

Cerebral embolism, thrombosis and hemorrhage and their sequent brain diseases, though cursorily considered are treated with brief comprehensiveness, leaving little more to be said for practical purposes,

The anatomy of the spinal cord with reference to its morbid states; the nerve centers, the psycho-motor centers, visual apparatus centers and other motor-reflex centers, with an interesting and highly instructive chapter on the reflexes generally considered and the sensori-motor system in diagnosis, the cerebro-spinal axis or neuraxis and its nerve centers, ganglia, plexuses and neurones, importance of the pupil and other nerve centers in diagnosis, the basal and other ganglia come under other chapters.

A cursory demonstration of the cranial nerves in their clinical relations, the columns of the spinal cord and the nerves that go to and from it, the cord segments of impression, expression and influence, a further outline of the cerebral and spinal nerves and nerve centers and their relations to nervous diseases are continuing features of this remarkable book.

The virile or geneseic reflex, discovered by the distinguished author, is an essential and specially valuable new feature of this work.

Aphasia defined, located and physically and psychically considered in its clinical and medico-legal aspects and the psychological analysis of the Bevin case are further interesting features.

The neural and psycho-neural aspects of surgical practice, lumbar puncture in surgical diagnosis and prognosis, and lumbar puncture in neuro and cyto-diagnosis, the nutrition and conservation of the neurones, or neuro and psychotherapy in surgery, fill other pages.

The psychiatric factor in surgical and medical practice, psychical depression and the neuropathic diathesis, post-operative insanity, etc., etc., are some of the other and many remarkable features of this remarkable book, from a remark-

able source of extensive and broad clinical observation and experience, reaching over a third of a century of constant, varied and wide medical practice, giving aspects of medical observation and reasoning from the neuro-anatomical, neuro-psychological and neuro and psycho-therapeutical side of medical observation, that is coming rapidly under the consideration of the profession and destined to prominently prevail in the future practice of medicine.

Though the incentive to the preparation of the book was to respond to the demand of those to whom the author had lectured as students of medicine, past and present, now living in the several States of the American Union and in countries abroad, in the three medical colleges in which he has lectured during the past three decades, the Barnes, the Marion-Sims (now St. Louis University) and the St. Louis (now Washington University), the medical practitioner everywhere may profit from perusal of its pages. The price is three dollars or for two copies to one address, five dollars.

De l' Etologie des Affections Cancerenses at de leur Traitement,
Par le Docteur JULES FELIX. 8vo. pp. 70. [Paris:
Société d' Editions Scientifiques, 4 rue Antoine-Dubois.
1896.

ON THE ETIOLOGY AND TREATMENT OF CANCEROUS AFFECTIONS. By Doctor JULES FELIX.

This is a well written as well as carefully considered little monograph on the subjects with which it deals. The author has had a large experience with carcinoma and he has carefully noted his observations. As a result of a long series of personal observations not to mention a conspectus of those of others he has come to the definite conclusion, that carcinoma in the ulcerative stage, is distinctly contagious. So much is he convinced that this is a fact that he will interdict sexual relations between a married couple when the wife is affected with carcinoma of the cervix uteri this interdiction being based upon some undoubted cases of infection observed by him. So far as treatment is concerned he is very much in favor of the caustic method and his statistics show a greater percentage of recoveries by this than by the knife. He gives the formula of his caustic constructed very much on the order of Bougard's paste. He carefully cautions against operative or other measures when the tumors are not well defined and limited as what he terms auto-infection is very liable to occur and the subsequent spread is worse than the original condition. The entire monograph is well written and no reference whatever is made to the use of the Roentgen rays because this method was not employed until subsequent to the appearance of Dr. Félix's

study, a copy of which is before us. It is well worthy of consideration by physicians and surgeons alike.

Arteria Uterina Ovarica. The Utero-Ovarian Artery or the Genital Vascular Circle. By BYRON ROBINSON, B. S., M. D. Small 4to. pp. 182. With 117 illustrations. [Chicago: E. H. Colgrove. 1903. Price, \$1.00.

The present monograph of Robinson is one of the most valuable contributions, made in late years, to the anatomy of the arteria uterina ovarica (Spiral Segment). In this contribution the author has presented the vitality of the genital vascular circle in surgical interventions on the tractus genitalis. For the purpose of defunctionating the tractus genitalis as regards reproduction and menstruation without ablation of organs or ligation of arteries the author presents the operation of endometrectomy and partial myomectomy. They constitute an important departure from the ordinary methods of operative surgery. The monograph before us is rich in illustrations original in character and drawn especially for this work. All were made from dissections and they represent years of work done by the author. The entire work is one of great value and is in line with some of the author's former work and like all he has done, it is full of originality, is thorough, of the highest practical application. We are pleased to have seen this really meritorious and valuable contribution to anatomy issued in book form and we have no doubt whatever that surgeons will consult its pages with interest to themselves and advantage to their patients.

A Text-Book of the Diseases of Women. By THOMAS. A. ASHBY, M.D. 8vo. pp. 661. With 233 Illustrations. [Baltimore: Williams & Wilkins Company. 1903. Price, \$3.00.

The author of the work before us has written a text-book of more than ordinary value. This we would be led to expect from the fact that he is professor of the diseases of women in the University of Maryland. He devotes quite an amount of space to the anatomy of the female genitalia and pelvic organs. This part is very fully illustrated and renders the subject very clear. A point to be commended is the insistence laid upon the formulation of an exact diagnosis. It is upon this point that the author has based his efforts and he has laid much stress upon the subject of physical diagnosis and for this he very properly states that a careful and painstaking examination should be made. This is certainly most necessary before any remedial or operative measures can be undertaken.

The classification of diseases of women has been made upon

an anatomical basis which is certainly a rational method. The adoption of this is the more easily understood when we state the author devotes quite an important part of his text to operative gynecology. The diseases both medical and surgical of the external organs as well as of the various pelvic structures are fully considered and the treatment laid down is, in the main, correct. The surgical operations are very well explained and thoroughly elucidated by the aid of figures of a demonstrative character. In fact, throughout the work, the author has borne in mind the fact that he was writing for students and practitioners. This it is which gives an added value to the work and it will also contribute a great deal to render it popular. Since subjects, such as *kranosis vulvae*, are rather summarily disposed of in the text. It can no longer be argued that they are curiosities and, on this account, should receive fuller consideration.

The book is, on the whole, a very commendable one and should meet with a large sale. It is well printed on excellent paper and the illustrations are good and sufficiently numerous for the purpose which they are expected to fulfill in this instance. We expect to see a new edition of this book appear in a short time.

De la Degenerence Cancereuse de l' Ulcere de l' Estomac
(Ulcère Simple et Ulcère Brunnérien). Par le Dr. C. AUDISTERE. 8vo. pp. 114. [Paris: C. Naud, 3 rue Racine. 1903.]

ON CANCEROUS DEGENERATION OF ULCER OF THE STOMACH.
By Dr. C. AUDISTERE.

Much has been written upon this subject but the present thesis is the most thorough which has yet appeared. The three plates which are appended to it are of great value and the cases related show us what care the author devoted to the writing of this valuable contribution to medicine. After giving a complete account of the various phases of the condition, one of which by no means is to be considered as rare, he formulates eight conclusions. Cancerous degeneration generally attacks old ulcers of the stomach located more particularly in the pre-pyloric region whose macroscopic and microscopic appearances are easily recognizable. The cancerous condition begins in the mucous membrane at the edges of the ulcer. The degenerated ulcer presents the symptoms of simple ulcer and this marks the presence of cancer and renders the diagnosis very difficult. Yet this complication which is engrafted on simple ulcer may be recognized by the persistence of the gastric symptoms, their resistance to the treatment for ulcer and by the appearance of no general symptoms, consisting more especially of a progressive

anemia. This brochure is a most valuable one and contains the latest points on simple ulcer of the stomach and its cancerous degeneration.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., assisted by H. R. M. LANDIS, M.D. Vol. II. September, 1903. 8vo. pp. 398. Diseases of the Thorax and its Viscera, including the Heart, Lungs and Blood-vessels—Dermatology and Syphilis—Diseases of the Nervous System—Obstetrics. [Philadelphia and New York: Lea Brothers & Co. 1903. Price per volume, \$2.50; per annum, in four cloth-bound volumes, \$10.00.

The review of diseases of the thorax and its viscera is well considered by the editor of this department, Dr. William Ewart. He gives quite some attention to pulmonary tuberculosis and to diseases of the blood-vessels. The bronchi and pleura also enter for some share of attention. The greater portion of this part of the book is devoted to the heart and its various affections, and the critical observations of the editor are of the highest value to the reader and student. In speaking of angina, the editor states that "compound angina pectoris," is a prudently inclusive title, which can qualify in turn the neuritic, the coronary and the myo-cardial theory, but at the same time suggests the un wisdom of theorizing.

The department of dermatology and syphilis is most excellently edited by Dr. William S. Gottheil. He gives as thorough a review of the progress made during the past year as the space allotted to him will permit. We find throughout some very pertinent critical remarks, which add much value to the text. His selections throughout are very good. He has had quite a number of well-executed figures introduced, there being a goodly number of his own interspersed. As all are well-executed half-tones, their value in elucidating the text is by no means small. Their selection gives evidence of much judgment and carefulness, and these qualities are apparent throughout this part. In a consideration of noma he accepts Matzenauer's view, that hospital gangrene, phagedenic and diphtheritic ulceration, and noma are histologically and etiologically the same. So far as syphilis is concerned, Dr. Gottheil gives us a well-considered and valuable review containing many observations of more than ordinary use to the practitioner. He very justly observes that no advance has been made so far as the cause of the disease is concerned.

Diseases of the nervous system are reviewed by Dr. William G. Spiller in a very comprehensive way. Diseases of the brain

and of the spinal cord occupy the major part of the section; diseases of the nerves and functional diseases coming in for a large share of attention. The editor very justly objects to the term trophoneurosis, whatever that may be, as he expresses it. In reviewing a case reported by Raymond and Sicard, of unilateral atrophy of the body occurring in brother and sister, he states that this occurrence of this trophoneurosis in a brother and sister is especially interesting, but the name trophoneurosis does not explain the process, and gives us little or no information.

Dr. Richard C. Norris is the editor of the department of obstetrics, and he has acquitted himself very well of his task. The subject of pregnancy takes up the major part of this contribution, this being followed by a well-written consideration of eclampsia. Obstetric surgery is next taken up in a few pages, and then we have the most valuable part of this section—that on the mechanism and management of abnormal presentations and positions. Puerperal infection receives quite a notice; and deservedly so, in view of the fact that it is so grave a condition.

The publishers have made this a handsome volume, and it is beyond doubt the best one which has been issued for quite some time.

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, other than Drug-giving, useful for the Prevention of Disease and in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A.M., M.D. Vol. X. 8vo. pp. 479. Pneumotherapy, including Aërotherapy and Inhalation Method and Therapy. By Dr. PAUL LOUIS TISSIER. Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1903. Price for the set of 11 volumes, cloth, \$27.50; half-morocco, \$38.50.

The present is a very valuable volume of this system, the more so as the practical applications of its teachings are so numerous. This is the natural outcome due to the great prevalence of pulmonary affections and diseases of the upper respiratory tract. One need but glance over the mortuary reports of the large American cities and examine the mortality tables to see to what an alarming degree this class of diseases prevails. And it is not alone this country which presents this great prevalence of these particular affections, but Europe equally shows a similar state of affairs. In fact, it may be said that these troubles seem to be inherent to civilization and to affect civilized as well as savage man as we observe him at this day. For this reason a work like the present one has an added value for the medical practitioner,

The author of this volume is well known in connection with the subject of which he writes, and he has made this volume authoritative in its discussion. For instance, he elucidates very completely aërotherapy and its applications, a method which is yet but imperfectly understood, although fresh facts are being daily adduced in support of its usefulness. The author discusses this thoroughly, both in the application of compressed and of rarified air. Discrepant opinions of different authors are reconciled by a thorough examination of the conditions and circumstances existing at the time the recorded experiments were made. The book throughout is written in an interesting manner, and the author has not omitted the historical part attached to every method. A departure from the system at first followed in this series is the publication of therapeutic methods directly after the description of a condition, instead of relegating it to a separate part. This is certainly an improvement, and will be much appreciated by readers who desire to obtain methods of treatment without the additional trouble of looking for them. Dr. Tissier is a celebrated clinician of Paris, itself the home of pneumotherapy, and the city where this method has been brought to the greatest degree of perfection. The private and hospital practice of the author has been very large and his opportunities of using them second to those of no one.

The book is divided into two parts. Part I. is devoted to Aërotherapy, and in this the author considers his subject from every possible standpoint. He considers air as a therapeutic agent, as modified in composition and temperature, and as composed or modified. General and respiratory gymnastics are taken into account and mechanical pressure methods. Part II. takes up Inhalation Methods and Therapy. He considers the use of gases, fumes and vapors, atomization, and the inhalation and insufflation of powders (so-called spirotherapy). From this very superficial notation of a part of the contents of the volume before us some idea may be formed of its scope and usefulness. It is complete, and thoroughly covers the part which it includes, and is a fit component of the very excellent System of which it forms a part.

A Handbook of the Diseases of the Eye and their Treatment.

By HENRY R. SWANZY, A.M., M.B., F.R.C.S.I. Eighth Edition, Revised. 8vo. pp. 580. With 168 Illustrations and zephyr card of Holmgren's Tests. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$2.50 net.

Swanzy on Diseases of the Eye is an English standard work on the subject and it has gained a well-merited popularity on account of its intrinsic value to the student and practitioner

alike. Even oculists have found this handbook a most valuable one and it has proven itself an invaluable aid to teachers. It is written on a plan which lends itself to an easy and rapid acquirement of the principles which it teaches. These principles are sound and are based on a rational foundation and a large experience. In fact, the entire work of the author is one which readily commends itself to him who has any knowledge of the subject with which he deals. He has succeeded in including within the pages of this book about all that is necessary for a student or a general practitioner to learn upon the subject of ophthalmology. In addition to this it forms a most excellent introductory to a more extended and particular study of the subject of diseases of the eye, and it is this very feature which has rendered it so popular and has led to so many repeated calls for new editions, the one before us being the eighth, revised up to date and enlarged by a number of additions.

Among these additions may be mentioned, a description of conjunctivitis petrificans, of grating keratitis, of guttate keratitis, keratitis aspergillina, a description of lymphangiodes of the eyelids and many others including more detailed accounts of several conditions and operations. We must not forget a description of amaurotic family idocy. This is only a partial list of additions made to this edition but it is sufficient to show how carefully done has been the author's work. He has practically made a new work of this edition and this should insure for it a large sale among all those who possess former ones, not to mention those who have not had the opportunity of seeing it before the appearance of the present issue.

The book is practically divided into three parts. The first three chapters deal with trial lenses, normal refraction and accommodation, the sense of sight and the field of vision. Abnormal refraction and accommodation and the ophthalmoscope close what is really the introductory portion of the book. The next part of the book which really constitutes the entire work is devoted to the diseases of the eye and their treatment both medicinal and operative. We note that in treating of glaucoma he does not mention its permanent cure, as advanced by Janovsky, by means of excision of the cervical sympathetic. This omission is, no doubt, due to the fact that the proposed method was a failure.

The book closes with two appendixes. In Appendix I. there is given an excellent account of Holmgren's method for testing the color sense, and added to this there is a zephyr card intended as a guide to the proper use of that which is larger, and furnished to oculists for their tests. Appendix II. gives the Regulations as to the defects of vision which disqualify candidates for admission into the civil, naval and military govern-

ment services, as well as the mercantile marine. The above gives but an inadequate idea of this excellent handbook, which the publishers have issued as a well-printed volume, made on extra paper and illustrated fully with good pictures. The price is exceedingly moderate, and all these qualities should ensure a large sale of this edition.

Text-Book of Histology, including the Microscopic Technic.

By DR. PHILIPP STÖHR. Fifth American from the Tenth German Edition. Translated by DR. EMMA L. BILSTEIN. Edited, with Additions, by DR. ALFRED SCHAPER. 8vo. pp. 485. With 353 Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1903. Price \$3.00 net.

The subject of histology is daily gaining ground with the medical profession from the fact that it is the very foundation stone of microscopic pathology, just as anatomy is the basis upon which surgery so highly depends. Microscopy plays the principal part in histology, and it is through improvements in technic and in methods of examination that discoveries are made; and the more improved the methods become, the more exact the results are, and in that ratio the more useful and exact are the results which are obtained. It is for this reason, among others, that it becomes necessary to issue new editions of works of this character. The whole value as well as reliability of the work before us can be judged by the fact that it has successfully gone through ten editions in Germany and a fifth American one is offered to the medical profession of this country. The author has now a reputation in this particular study, and is well known in Germany as the celebrated professor of Breslau. He has shown and proven his ability in this particular branch of research, and the popularity of his work is evidence of its value to both students and members of the medical profession. In fact, one who is in the least competent to form a judgment can see at a glance that the book is of a superior order. Dr. Stöhr's book is divided into three parts. Part I. deals with General Technic, and is divided into three sections. The first one of these gives the laboratory appointments; the second one deals with the preparation of the microscopic specimens; and the third one with the management of the microscope. After having disposed of the prolegomena, we are introduced to Part II., in which is to be found Microscopic Anatomy and Special Technic. This part is again divided into two sections, one devoted to histology proper, and the second one to the microscopic anatomy of the organs. This latter part is again subdivided into thirteen sections. It is in this second part that we are given the technic to be followed in the preparation of each tissue and organ, the descrip-

tion being always followed by these directions. This is certainly a most valuable portion of the book; for it enables the student to make microscopic preparations which are both reliable and demonstrative, and enough care has been taken in this formulation to avoid the formation of artefacts. This part naturally forms the body of the work, and it is very well considered as well as written. It is full of illustrations, for the most part original with the author, but a very few being derived from outside sources, and even the majority of these are contributed by the editor of the American edition, so that, on the whole, we may consider it all original. The book concludes with an appendix, which is taken up with Microtome Technic, a subject of no mean importance in connection with microscopic technic. The conclusion embraces a list of books recommended for collateral study.

The translation is a good one, and has been done in a conscientious manner. We would suggest, however, the use of the term nose-piece instead of "revolver" in connection with the microscopic stand. The editor has done his work in a very thorough manner, as evidenced by the numerous additions which he has made, all of which are of the highest value. We note that the term coil glands, first introduced by Unna as a substitute for sweat glands, has been adopted in the text-book before us. We are surprised, however, that in view of the fact that the author speaks of the eponychium, no allusion whatever is made to the epitrichium. We also note that Herxheimer's spirals are passed over in silence. We should certainly be pleased to know the opinion of Stöhr upon the disputed discovery of Herxheimer.

Despite these few little defects, which are not really serious, the book is one whose excellence is beyond all question of dispute, and will readily place it in the first rank of the latest and the best works of its class. The book is first-class in every respect, and the publishers are to be congratulated upon the handsome appearance which it presents. The print is clear, the paper excellent, and the binding much above the ordinary, the beveled edges of the covers giving the volume a finished appearance. No physician or student can afford to be without the book, more especially in view of the extremely low price at which it is offered for sale.

Serum Therapy, Bacterial Therapeutics and Vaccines. By R. J. HEWLETT, M.D., M.R.C.P., D.P.H. (Lond.) 12 mo., pp. 262. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.75 net.

This is an excellent little guide which gives a fair account of the technique of the preparation of the various sera and cul-

tures of bacteria as well as of the different vaccines supposed to have curative properties in diseases. The author discriminates very thoroughly and gives us his honest opinion in various cases where claims have been made and not established such as leprosy, syphilis, and glanders. The last he looks upon as being valuable only for the purpose of making a diagnosis. Coley's fluid he has found totally inefficient in melanotic sarcoma and only partially successful in carcinoma. As Coley himself has said it is only applicable in inoperative cases. The book is well written throughout and based upon Ehrlich's theory of toxins and antitoxins which is well elucidated at the beginning of the book. This part alone is worth the price of the work and our only regret is that the author did not make it larger and more comprehensive. It will richly repay a careful perusal and study of its pages.

A Compend of Human Anatomy. By SAMUEL A. POTTER, M.A., M.D., M.R.C.P. Lond. Seventh Edition. Revised and enlarged. 12mo. pp. 372. With 138 Wood Engravings; also Numerous Tables and 16 Plates of the Arteries and Nerves. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, 80 cents net.

No one who examines this little book will be surprised at its having passed through so many editions, for it is, without doubt, one of the best compends on anatomy which has been issued. The present edition has undergone a thorough revision at the hands of its author, the illustrations having been increased from 117 to 138 and many old cuts replaced by newer ones. The volume has been increased in size, it having had 82 pages added, this being due to an expansion of the text, owing to the necessity of entering into a few details here and there. We are not surprised that this little book has enjoyed the popularity it has and this edition will certainly increase it. The price has not changed and a careful examination of the book will show that it is a marvel of cheapness as well as a reliable guide for the medical student.

A Compend of Diseases of the Skin. By JAY F. SCHAMBERG, A.B., M.D. Third Edition. Revised and enlarged. 12mo. pp. 291. With 106 illustrations. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, 80 cents net.

This little book is one which is certainly a credit to its author and it is an improvement upon his former edition. The author has fully proven in this his ability as a teacher and we hope to see an extended work upon skin diseases from his pen. He has been quite an active worker in the field of dermatology and his various contributions have been both interesting and

valuable. The epitome before us is both concise and clear and is full of useful information for both the student and the practitioner. We expect to see this edition soon exhausted and we would suggest that the next contain a few colored plates even at the cost of slightly increasing its sale price.

Lessons in Disinfection and Sterilization. An Elementary Course of Bacteriology together with a Scheme of Practical Experiments Illustrating the Subject-Matter. By F. W. ANDREWS, M.A., M. D. OXON, F.R.C.P., Lond., D. P. H. CANTAB. 12mo. pp. 222. [Philadelphia: P. Blakiston's Son & Co. 1903.

This is an excellent little book primarily intended for the instruction of nurses but also designed to aid all those who are not well acquainted with the subject of bacteriology. The author has made his little book so plain and lucid that any intelligent person can understand the subject with which he deals. He gives the logic of description explaining the why's and wherefore's of every move made in such a manner that he who reads this clear expose will have learned much to his own advantage. The book is a useful one and worthy the warmest commendation.

La Cure de la Tuberculose dans les Sanatoriums Français. Par les Docteurs A. F. PLICQUE et VERHAEREN. 12mo. pp. 152. Avec 32 Illustrations. [Paris: C. Naud, 3 rue Racine. 1903.

THE TREATMENT OF TUBERCULOSIS in French Sanitaria. By Drs. A. F. PLICQUE and VERHAEREN.

This little book has been written for the laity and the authors have authorized its translation and reproduction everywhere. They are members of the antituberculosis league and desire to do all the good in their power. The present booklet discusses the open air treatment of pulmonary tuberculosis and illustrations of the different modes of carrying out the treatment at various sanatoria are given. The book is really a very interesting one and is replete with both good and interesting information which can be applied and made advantageous anywhere *mutatis mutandis*. We are pleased to have seen this book and hope to see translations of it appear in the distant future.

Modern Bullet Wounds and Modern Treatment. With Special Regard to Long Bones and Joints, Field Appliances and First Aid. Part of the Alexander Essay for 1903. By MAJOR F. SMITH, D.S.O. 12mo. pp. 99. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.20 net.

This little book is a most excellent guide for field surgeons and the author has made it an interesting as well as valuable handbook. He has thrown a new light on so-called "humane wounds" and has made some valuable suggestions in the way of providing readier first aid to the recipients. We are sorry to note that all illustrations and diagrams have been omitted on the score of expense. Our military surgeons both in the regular army and the militia would certainly greatly profit by the adoption of this little book as a guide.

LITERARY NOTES.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL,

A Text-Book on the Diseases of Women. By Thomas A. Ashby, M.D., 8vo. pp. 661. With 233 Illustrations. [Baltimore: Williams & Wilkins Company. 1903. Price, \$3.00.

La Cure de la Tuberculose dans les Sanatoriums Français. Par les Docteurs A. F. Plicque et Verhaeren. 12mo. pp. 152. Avec 32 Illustrations. [Paris: C. Naud, 3 rue Racine. 1903.

De la Dégénération Cancéreuse de l'Ulcère de l'Estomac (Ulcère Simple et Ulcère Brunnérien) Par le Dr. C. Audistère. 8vo. pp. 114. (Paris: C. Naud, 3 rue Racine. 1903.

Del'Étiologie des Affections Cancéreuse et de leur Traitement. Par le Doctor Jules Félix. 8vo. pp. 70. [Paris: Société d'Éditions Scientifiques, 4 rue Antoine-Dubois. 1896.

Arteria Uterina Ovarica. The Utero-Ovarian Artery or the Genital Vascular Circle. By Byron Robinson, B.S., M.D. Small 4to. pp. 182. With 117 Illustrations. [Chicago: E. H. Colgrove. 1903. Price, \$1.00.

A Compend of Human Anatomy. By Samuel O. Potter, M.A., M.D., M.R.C.P. Lond. Seventh Edition, Revised and Enlarged. 12mo. pp. 372. With 138 Wood Engravings; also Numerous Tables and 16 Plates of the Arteries and Nerves. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, 80 cents net.

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Serum Therapy, Bacterial Therapeutics and Vaccines. By R. T. Hewlett, M.D., M.R.C.P., D.P.H. (Lond.). 12mo. pp. 262. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.75 net.

Lessons in Disinfection and Sterilization. An Elementary Course of Bacteriology, together with a Scheme of Practical Experiments Illustrating the Subject-Matter. By F. W. Andrews, M.A., M.D. Oxon., F.R.C.P. Lond., D.P.H. Cantab. 12mo. pp. 222. [Philadelphia: P. Blakiston's Son & Co. 1903.

A Handbook of the Diseases of the Eye and their Treatment. By Henry R. Swanzy, A.M., M.D., F.R.C.S.I. Eighth Edition, Revised. 8vo. pp. 580. With 162 Illustrations and Zephyr Card of Holmgren's Tests. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$2.50 net.

Modern Bullet Wounds and Modern Treatment. With Special Regard to Long Bones and Joints, Field Appliances and First Aid. Part of the Alexander Essay for 1903. By Major F. Smith, D.S.O. 12mo. pp. 98. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.20 net.

Text-Book of Histology, including the Microscopic Technic. By Dr. Philipp Stöhr. Fifth American from the Tenth German Edition. Translated by Dr. Emma L. Bilstein. Edited, with Additions, by Dr. Alfred Schaper. 8vo. pp. 485. With 353 Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$3.00 net.

The Neurological Practice of Medicine. A Cursory Course of Selected Lectures in Neurology, Neuriatry, Psychology and Psychiatry; applicable to General and Special Practice. After the Author's Class-Room Methods as a Teacher of Students. Designed for Students and General Practitioners of Medicine and Surgery. By Charles H. Hughes, M.D. 8vo. pp. 417. With 177 Illustrations. [St. Louis: Hughes & Co. 1903. Price, \$3.00.

A System of Physiological Therapeutics. A Practical Exposition of the Methods, other than Drug-giving, Useful for the Prevention of Disease and in the Treatment of the Sick. Edited by Solomon Solis Cohen, A.M., M.D. Vol. X. 8vo. pp. 479. Pneumotherapy, including Aërotherapy and Inhalation Methods and Therapy. By Dr. Paul Louis Tissier, Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, for the set of 11 volumes: cloth, \$27.50; half-morocco, \$38.50.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical

Sciences. Edited by Hobart Amory Hare, M.D., assisted by H. R. M. Landis, M.D. Vol. III. September, 1903. 8vo. pp. 398. Diseases of the Thorax and its Viscera, including the Heart, Lungs and Blood-vessels—Dermatology and Syphilis—Diseases of the Nervous System—Obstetrics. [Philadelphia and New York: Lea Bros. & Co. 1903. Price, per volume, \$2.50; per annum, in four cloth-bound volumes, \$10.00.

The Christian Science Delusion is the title of a 52-page 12mo., written by Rev. A. J. Dixon, D.D., and published by William H. Smith, of 25 Stanhope Street, Boston. This fascicle is a well-written arraignment of Christian Science, and it is based upon logic and good common sense. We would recommend our readers to obtain a copy, which sells at 10-cents.

The American Journal of Orthopedic Surgery has just appeared. It is an 8vo. of 108 pages, whose initial number is dated August, 1903. It is the official publication of the American Orthopedic Association, and contains the various papers read before that society. It is edited by a committee composed of Drs. R. W. Lovett, B. E. Mackenzie and Harry N. Sherman. In addition to the official proceedings, there are given in the first number which we have seen some twenty-five pages of carefully selected abstracts relating to orthopedic surgery. This journal is well printed on good paper, and its periodical appearance is a great improvement upon the yearly issue of the transactions in book form as heretofore.

A Case of Late Contagion of Scarlet Fever.—M. R. Millon reports the case of a boy who was affected with scarlet fever, contracted probably at school. His younger brother was at once sent away from home. The patient went through the various stages of the disease, after which disinfection and destruction of every possible source of contagion was carried on to a degree that seemed almost extreme. The younger child returned after forty-five days of absence, and the very next day was seized with a typical attack of scarlatina. These facts prove that the contagious period of the disease is much longer than is usually supposed. It is also worthy of note that in spite of the most minute and rigorous disinfection, the agent of the disease was not totally destroyed.—*Med. Record.*

NEW INVENTIONS.

736,328. Sterilized Surgical-Instrument Case. Helen P. Wilson, Vanwert, Ohio. Filed Oct. 4, 1902. Serial No. 125,-946. (No model.)

Claim.—1. An instrument-case comprising an outer case of water-proof material having rounded corners and a rounded lid, an inner case of sheet rubber, a flap attached to the inner case of the same material, and a band adapted to distend the inner case.

2. In a device of the kind described, the combination of a vulcanized outer case having rounded corners, of an inner case of soft rubber having a flap along one edge, and a band of comparatively rigid material adapted to fit in the upper portion of the inner case and extend same to the dimensions of the interior of the outer case.

728,980. Surgical Applicator. Elzie L. Ridgway and Daniel H. Bailey, Denison, Tex. Filed Jan. 15, 1903. Serial No. 139,180. (No model.)

Claim.—1. A surgical applicator comprising a hollow cylinder adapted to hold a medicament in contact with the membranous lining of the urethra, and a flexible sack disposed within the cylinder and serving to receive discharges from the urethra, the inner open end of the sack being secured to the inner wall of the cylinder.

2. A surgical applicator comprising a hollow cylinder adapted to hold a medicament in contact with the membranous lining of the urethra of the phallus, and an elastic ring secured to the cylinder and adapted to engage the glans.

729,011. Hypodermic Syringe. Charles J. Tagliabue and Frederick W. Steuer, Brooklyn, N. Y.; said Steuer assignor to said Tagliabue. Filed Dec. 9, 1901. Serial No. 85,127. (No model.)

Claim.—1. The combination of the barrel, the piston-rod mounted to turn and slide therein, said rod being provided, at different points of its length, with screw-threads of opposite pitch, expanders screwing respectively on said threaded portions of opposite pitch, an expansible member engaging said expanders and the inner wall of the barrel, and means located in the path of one of the expanders, for holding such expander against rotation.

Reported especially for the JOURNAL by H. B. Willson & Co., patent attorneys, 8th and F Streets N. W., Washington, D. C.

A complete copy of any of these patents will be forwarded to any person by Messrs. Willson & Co. on receipt of ten cents. Persons ordering copies must give number of patent.

2. The combination of the barrel, the piston-rod mounted to move therein, two expanders mounted on said rod at different points of its length and movable one relatively to the other, said expanders being beveled or tapered toward each other, and an expansible sleeve made of elastic material and having its ends engaged with the beveled surfaces of the expanders while the body of said sleeve surrounds at a distance that portion of the piston-rod which is between the expanders, leaving the body.

LINDSTROM'S X-RAY SCREEN.

As it is now an established fact that the X-Ray will burn the patient, as well as the operator, if exposed too long to the rays, it is necessary that every user of the X-Ray Machine, should use an X-Ray Screen.



The above cut illustrates a screen, which is very simple and which can be attached to any good tube holder. As can be seen from the illustration, the tube is connected to the screen and the screen is held by an ordinary tube holder, which enables the operator to adjust it the same way as a tube.

The opening for the rays can be adjusted to any size and many dozen different shapes can be obtained, besides protecting the patient and operator from X-Ray burns. It will also protect the tubes from breakage.

MISCELLANEOUS NOTES.

Neurilla in Insomnia.—In a case of insomnia, due to great nervous excitement, I found Neurilla all that is claimed for it. I shall continue to prescribe it in cases where a nerve calmative is indicated.

Niverville, N. Y.

D. L. SPAULDING, M.D.

Celerina in Shaking Palsy.—For shaking palsy nothing excels tinct. Aesculus Glabra, one-half drachm, Celerina, 8 ounces. Teaspoonful every two or three hours.

The Advantage of Combining Remedies.—John Moir, L.R.C.P., and L.R.C.S. Ed., in *The Therapist*, London, says: "Latterly I have been using heroin very extensively in tablet form in combination with antikamnia, and found the combination to act charmingly, both for relieving pain and in procuring comfortable, restful sleep, so very desirable and necessary after sleepless periods caused by a protracted irritable cough. The soothing rest in these cases was also characterized by a light but well-marked fall in temperature; but the greatest benefit of all in this treatment is that, although the distressing frequency of the respiration was reduced, it was stronger and heavier and less spasmodic, with a beneficial effect upon the heart at the same time. The tablets I use contain antikamnia, 5 grs.; heroin hydrochlor., $\frac{1}{12}$ gr.; and were given every two, three or four hours, in cases of cough, bronchitis, and respiratory affections generally, according to the severity of the symptoms, but usually one tablet every three hours. I found that the respiration was rendered easy, the expectoration was loosened without difficulty, and sleep was more readily obtained than with morphine; and, unlike morphine, there were no after-effects. I have, personally, been taking Antikamnia and Heroin Tablets three times a day for an irritating cough, with an occasional inclination to breathlessness; so that I have every reason to be thoroughly satisfied with them as sedative and calmatives."

Ideas in Gynecology.—After vaginitis, leucorrhea or gonorrhea have existed unchecked for a few weeks the family physician often sees the necessity of a complete exfoliation of the membrane attacked.

There is no method of accomplishing this so surely and without untoward results as the use of Micajah's Medicated Uterine Wafers, alternated with the English hot water douche (100° to 114°).

These wafers are of unexampled usefulness to the practitioner, because they can be safely prescribed for use by patient's living at a distance, as they are self-retaining and need no tampon.

Life Nourishes Life — Bovinine.—The origin, evolution and interdependence of the different species of animals are themes ever full of interest.

Waiving all discussion of the origin and evolution of the species, as well as other questions of biology and mythology, it is conceded that man was created a "a little lower than the angels," but a great deal higher than the highest of the brute family.

Practically, as declared in Holy Writ, man was given dominion over the beast of the field and the fowls of the air. He cannot cope with the elephant or lion in strength, but he can devise traps and pitfalls in which to capture them. He cannot run with the deer nor fly with the eagle, but he can invent explosives swift enough and rifles accurate enough to overtake either of them.

Brain triumphs over brawn; mind conquers muscle. The ponderous elephant obeys the pusillanimous prod of his pigmy keeper, because

the prod is wielded by a superior intelligence. Timid philosophers and pessimists indict this fact of supremacy and dominion as a mere opportunity for cruelty. It is nothing of the kind. It is predestination—a part of the original plan.

Throughout the entire length of the chain, the lower orders contribute to the higher. But for this law of interdependence and necessity the progress of the race would have halted ages ago, and in its noblest representatives of to-day would rank no higher than the recently discovered "little bushmen," who skulk in the jungles of unexplored Africa.

Life sustains life—it is the law, order and sequence of Nature. Our present knowledge does not enable us to define this mysterious life, but we know how it is nourished. The animal transmutes plant, pulp and seed into assimilable nutriment, dissolves it into a soluble fluid (serum), and sends it coursing through the distributing channels of the body. It is free from waste, distilled, refined, perfected by unerring vital chemistry—it is ready for instant use.

Bovine is this vital fluid, perfectly sterilized and protected from deterioration. In Bovine the life-giving elements that go to sustain and build the body retain all their nutritive integrity, ready for immediate absorption into the circulating medium, that medium through which all degenerative processes are interrupted, all repairs accomplished, all growth induced. There are no artificially prepared foods to be compared with it, since Nature herself compounds, refines and perfects it to her own needs and purposes.

We cannot reiterate it in too strong language that the blood is the sole sustainer of life. It carries, contains and contributes every atom, element and molecule of matter that goes to build, sustain and restore the human body—muscle, nerve or brain, flesh or framework. None of the artificially prepared foods, whatever their name or claims, are thus vivified, vitalized, ready for instant assimilation and transmutation into vital force—into vigorous life.

Bovine is all this. It is this life-nourishing fluid, perfectly pure and preserved from deterioration, fully charged with every nutritive element required to replenish the impoverished current. In short, it is an ideal builder, repairer and nourisher in all conditions where an instantly assimilable nutrient is required.—THE BOVINE CO., 75 W. Houston St., New York City.

Dermapurine in Acne Rosacea.—In a case of acne rosacea of the nose in a married lady, aged 32, mother of four children, I had her soften the skin with crystal water and Dermapurine Soap. After drying, I had her apply the Liquid Dermapurine, diluted 50 per cent with crystal water, application being made with absorbent cotton at bed time. These applications were made three times a day for between three and four weeks, when a very obstinate and disfiguring face blemish was cured.—E. E. HOLT, M.D., in *Regular Medical Visitor*.

Passiflora for Shattered Nerves.—Daniel's Conc. Tr. Passiflora Incarnata supplies staying and resisting power to shattered nerves, and gradually, but effectively, brings the whole system from the point of collapse, soothing, vitalizing and nourishing the impoverished ganglia. Its extended use throughout America, in hospitals and private practice, will substantiate the truth of these statements.

Leading physicians prescribe it daily, and declare results which pronounce this preparation the most valuable sedative and hypnotic.

Excerpt from the London Daily Chronicle.—The general results of the recent discussion in this paper of the relative value and safety of various antiseptics derive confirmation from a monograph

which we have received from the Pasteur Institute of Paris. We described the volatile or essential oils of plants as the safest—and the most pleasant, might have been added—of antiseptics for direct human use; that of eucalyptus holding a very high place. A couple of professional members of the Association of Analytical Chemists of the Pasteur Institute have been studying Listerine, which is named after the great English surgeon. Listerine is a mixture of the essential oils of thyme, eucalyptus, baptisia, wintergreen and mint. It has relatively non-toxic properties peculiar to these oils, but the Parisian savants have brought the important fact that the mixture of oils is much more potent than any one of them singly. It attacks more than one joint in the bacterial armor. Carbolic acid—used so much mainly because it is the original antiseptic employed by Lister—is 146 times as toxic as Listerine.

Acute Rheumatism.—

R Tongaline.....8 ozs.

M. Sig. A teaspoonful four or five times a day until pain is relieved. Then a teaspoonful three times a day.

Anti-Rheumatic.—

R Kali Iodid..... $\frac{1}{2}$ oz.

Kali Acetat.....1 oz.

Tongaline.....q. s. ad. 6 ozs.

M. Sig. A teaspoonful three times a day.

Anti-Rheumatic.—

R Sod. et Pot. Tartrat..... $\frac{1}{2}$ oz.

Tongaline.....q. s. ad. 3 ozs.

M. Sig. A teaspoonful three times a day.

Sanmetto as a Genito-Urinary Tonic and Remedy.—I have prescribed Sanmetto in a number of cases of incontinence of urine, with gratifying results. I believe it to be a remedy *par excellence* in all cases of genito-urinary complaints. I have reason to believe that Sanmetto possesses aphrodisiac properties equalled by few remedies at our command.

G. C. SNYDER, M.D.

Moxahala, O.

What Is There in a Name?—It enables the doctor to indicate positively the product that he would prescribe, having confidence in his druggist that his prescriptions will be filled only with the identical drug. Why is it so important that the doctor should designate plainly the name of such product? That the druggist may not exercise his own judgment or confound such name with those similar which he may think is "just as good." Why is a name trade-marked? For the protection of the doctor as well as the manufacturer. Why is there such similarity in the name of some products, which frequently confuse the doctors as well as the druggists? Because unscrupulous manufacturers try to reap the benefits of the established trade-marked name of the products already recognized by the profession as being the standard and most efficient in the class of cases for which they are indicated. Have you not, doctor, prescribed Neurosine as a neurotic, anodyne and hypnotic, and continued its use because you have obtained satisfactory results? Taking this for granted, when a product of similar name is presented to you, is it not well to consider the intention of the manufacturer of such product in adopting a name so near like that of Neurosine without becoming liable for infringement of such trade-mark? Do you, doctor, think this honorable? For instance, the name Neurosine (trade-marked over twenty years) is well known to the profession, and a very large demand has been created in consequence of its efficiency wherever a neurotic, anodyne and hypnotic is

indicated. Should such products, which follow in the wake of Neurosine or other standard products, in consequence of similarity of name, be countenanced by the medical profession, where it is clearly evident that the manufacturers are attempting to do business on the well-earned reputation of Neurosine. Should the doctor countenance any product of which the formula has not been freely circulated to the profession. Most positively no. The Code of Ethics, which every regular practitioner recognizes, discourages the patronizing of "secret" remedies. Neurosine contains no opium, morphine, chloral, or other deleterious drugs.

Epilepsy.—How little we know about the nature and cause of this disease. No more difficult problem confronts the physician than when he is called upon to prescribe for a disease, the nature and cause of which is as obscure as is that of epilepsy. With no pathological lesions to lighten our path to the goal of definite therapeutics, is it to be wondered that theory takes the place of theory in regard to its nature, and that empiricism is the order of the day in its therapy? Few diseases have seen a greater galaxy of remedies arrayed against them than has epilepsy, and in few has the disappointment from most of them been so great. The bromides, which during the last fifty years have held the center of the field in the therapy of epilepsy, have not escaped serious objections, since it is acknowledged that they do not cure the disease, but, on the other hand, work serious mental mischief in numerous instances. Acknowledging the fact that for the present, at least, the treatment of epilepsy must be based upon experience, the aim of the physician must be to select such a remedy which a large experience has shown to produce the best results, with no deleterious effects. Such a remedy is hydrocyanate of iron (Tilden's). The remarkable and permanent cures wrought with this preparation, in numerous cases vouched for by numbers of the most experienced and skillful practitioners and neurologists in the country, entitled hydrocyanate of iron (Tilden's), to a place in the front rank as a remedy for epilepsy, and incidentally, in such neuroses as chorea, migraine and nervous headaches, for which it has proven itself of exceptional value.

Hydrocyanate of iron (Tilden's), must not be confounded with any other remedy which purports to be similar. It is a distinct preparation, whose process is known only to the Tilden Company, and in whom is also vested the right to the use of the name hydrocyanate of iron. To avoid substitution, therefore, physicians should specify hydrocyanate of iron (Tilden's), and avoid the uncertain results of inferior, spurious substitutes.—*Southern Clinic*, Sept., 1903.

Palatable yet Effectual.—There is a wide-spread belief that physicians, as a rule, consider well founded that cod liver oil is not only a remedy of decided power, but a food of very high value. Every physician knows, however, that a very large number of patients who should and doubtless would get great benefit from it cannot or will not take it. This is largely due to the fact that the ordinary preparations are so nauseating as to cause serious digestive disturbances, while in many cases the stomach will not even retain them. It is notorious that the so-called "tasteless" preparations are indeed tasteless because they contain no cod liver oil. But there is a preparation that contains all the potent elements of cod liver oil in a form pleasant to the taste and agreeable to the weakest stomach. We refer to Hagee's Cordial of Cod Liver Oil with Hypophosphite of Lime and Soda. Eminent physicians pronounce it a triumph in modern chemistry, and prescribe it when cod liver oil treatment is indicated. In our hands results with it have been most satisfactory.—*Massachusetts Med. Jour.*

ST. LOUIS
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ORIGINAL COMMUNICATIONS.

**ORIGIN OF QUATERNARY MAN IN THE WESTERN
HEMISPHERE.**

BY ALBERT S. ASHMEAD, M.D., NEW YORK.

I shall give here the testimonies of various sciences directly bearing on the question which I raise: Whether the American Indians, exemplified in rude degree of development by the Quayaquis of La Plata (Argentina, Paraguay and Patagonia), are not descendants of paleolithic man of Western Europe, who emigrated during glacial times from the Ligurian peninsula by a then existing land route, now almost completely submerged by the Atlantic Ocean, which included in its continuity the Azores, Canaries and West Indian Islands, and connected the two hemispheres? Although it may be considered as a liberty on my part to raise this question, yet it has a relation with my special study for several years past—the origin of diseases among our ancient races. Here are a few reasons which have prompted me to believe that the question must be answered in the affirmative: 1. Man must have been in America long before he had any culture. 2. Extinct animals of quaternary age of Europe were also here with him. 3. Horses were also here, and had been his article of diet in ancient Europe. 4. The Ligurians of Western Europe were not derived from Egypt and Arabia, and were driven before the advancing civilization of those countries. 5. Ancient American man did not come across the Behring Straits. 6. Absence

of leprosy in the ancient races of America; a disease which would have come with them had they been Asiatic. 7. Negative evidence of the caves of Yucatan as to fossil man, and proof that Mayan civilization (like Incan civilization, which I have shown by my own investigations) had developed *per se* from a pre-existing savage state, and which are dissimilar from any other known culture of the world. 8. The finding of fossil animal remains on South American coasts which were habitable in glacial times (for the fossil horse is found there) similar to those of Liguria in Europe, and identity of the extinct species of Liguria and America. 9. Relative similarity of bone types of Quayaquis Indians of South America to those of fossil men of the ice age in France, considering them as separately developed through the centuries, to a cultured man in Europe, and still a savage man in America. 10. Geological evidence that the ocean and land levels of glacial times were not the same as they are now; a change took place in inter or post-glacial times. 11. Mongoloid appearance persisting in Quayaquis Indians, like that which was recognized in quaternary men of Europe, and which has caused some anthropologists to believe that ancient France was settled by Chinese. 12. The absence of any plants, or customs or religious rite—more especially fire worship—which could have been derived from Egypt, Arabia, or India. 13. Absence of any other solution of the problem of man's antiquity in America that is consistent with every known scientific fact of living man or of fossils on this hemisphere and with our general scientific knowledge down to date.

Dr. Leonard, a traveling dentist, has recently received from Dr. Richardson of Ely, Nevada, a most wonderful pre-historic relic. It will establish, if it is verified by more competent authority, the fact that man existed as far north as that as far back as the quaternary period, when he disputed with the sabre-toothed tiger, the hyena and the cave-bear for the possession of the caves as a home.

“While running a drift, a gang of miners put a charge in a cross ledge, and among the quartz blown out was found a stalagmite cast of the inside of a human skull. The doctor sent this wonderful discovery to the University of Michigan at Ann Arbor. The stalagmite skull is evidence of the existence of man in the days when the extinct carnivora wandered all over the earth.

"Dr. Leonard will also send to the same university the bones of a mastodon (pre-historic) found by him on the Snake River." (*Austin Reville.*)

In the Loup Fork tertiary deposits of Kansas, which is not so far away from Nevada, the right upper canine of *Machærodus* was found. The remains of several feline animals are described from Loup Fork, *Felis Maxima* (Scott), the largest of all known felidæ, among them. But none refer to the genus *Machærodus*. The tooth referred to indicates an animal smaller than any known American pleistocene species. The Loup Fork species may be known as *Machærodus Crassideas*. It resembles the *Machærodus Nestianus* of the upper pliocene of Italy (Iberia). Here we have some evidence of sabre-toothed tiger in Kansas, near Nevada. Until evidence of fossil animals is found in Ely, Nevada, where the skull cast was found, it will, I think, be difficult to prove that it was a pre-historic relic.

Near Niebert's Springs, seven miles from Knoxville, Tennessee, molar teeth of a mastodon were found under thirty inches of yellow clay, containing water-worn stones. The largest tooth was sixteen inches in circumference. The University of Tennessee has in its possession other remains from Hawkins County, consisting of a tusk twenty-two inches in circumference and twelve inches long, and a molar tooth with but two ridges. Here we have evidence of the mastodon in Tennessee, near the mound builder's site (Tennessee and Ohio).

I know of no discovery, says Marquis de Nadaillay, touching pre-historic times more remarkable than those made in the caves of Baoussé Roussé, between, Mentone and Ventimiglia, on the borders of France and Italy. These caves were first discovered in 1872 by Mr. Rivière. Since that time this learned gentleman has vigorously prosecuted his excavations,* and they have yielded numerous human skeletons, all belonging to the celebrated Cro-Magnon race, who, at the end of the quaternary period, or perhaps at the beginning of neolithic times, ruled not only the south of France, but also all the Mediterranean shores. It is these same men we meet with under the name of Iberians, Ligurians, Sicanians, perhaps also under those of Pelasgians and Berbers. It is their bones that the

*They are related at length in "L'Antiquité de la homme dans les Alpes maritimes." Paris, I. B. Baillière et fils, 1887.

brothers Siret found in the south of Spain, Professor Sergi in Italy, and Mr. Rivière at Baoussé Roussé.

All the bones, wherever found, show a great similitude. They are robust, and bespeak an athletic constitution and a large muscular power. The men were remarkably tall, the crania are dolichocephalic, the tibias platymeric, but since Dr. Manouvrier's observations, we cannot see there an inferior character. The cranium of the first skeleton found (an old man) measured 1,590 cubic centimeters. The cranium of the woman found next to him, 1,450 centimeters; but this last measurement is not quite accurate, on account of the decomposed state of the bones.

The man had upon his head a net of small shells (*Nassa neritea*), and bracelets of shells around his arms and legs. Near him Mr. Rivière collected more than 150 stone implements, and also numerous bones of mammals, birds and fishes, evidently the food of people.

New discoveries quickly followed the first one, and we always find a particular mode of inhumation, which, I believe, still exists, or lately existed, *in some Indian tribes*. The bones of all the adults, after the total decomposition of the flesh, were painted in red, with the help of peroxide of manganese or other substances frequently met with in the different caverns.

The last excavations took place in February, 1892, in one of these caves, named Barma Granda. A communication made to the Académie des Inscriptions, March 4, 1892, informed us of the discovery, at 8 metres below the level of the ground, of three new skeletons—a man, a woman, and a young subject whose *dentes sapientiæ* had not yet evolved. They had been buried on a bed of cinders, broken fragments of charcoal, remains of all sorts, evidently the hearth on which the family cooked their victuals. The boy wore a necklace formed of two rows of the vertebræ of a fish and one row of small shells. At different points hung pendants cut out of the canine teeth of stags, decorated with parallel striæ. The man had also a necklace of fourteen canines of the stag, also striated. With the skeletons were found a certain number of stone instruments, some of them finely worked, but none of them polished, and some bone implements of very gross fabrication.

The man was very tall, and, if we judge by the length of the

thigh-bone (545 millimetres), his height must have exceeded two metres (6 feet 6 inches). The boy, who had not yet attained his manhood, measured 1.63 metres (5 feet 8 inches). We must also remark the extreme wear of the teeth, very apparent already in the boy, and which in the man extended to their very root. I have already said that the caves of Baoussé Roussé yielded numerous bones of mammals, but none of them belonged to the extinct species, not even to the reindeer, which is found in the south of France even at a late period. On the other hand, no polished stone implement was ever found in these caves. We can, therefore, give these men a pretty accurate date, and place their existence, as I have said, at the end of the quaternary or the beginning of the neolithic times. One cave remains as yet unexcavated. It belongs to the Prince of Monaco.

Man of the quaternary period, says Quatrefages, has left here and there a few of his bones by the side of those animals who were his contemporaries. The human bones in question belong, however, almost exclusively to Europe. The fossil man of other parts of the world is almost unknown to us. Lund is said to have discovered it in certain caves in Brazil. But unfortunately we have no other details of his discovery than a short note and two drawings of small dimensions, published quite recently by Messrs. Lacerta and Peixoto. Much has been said about the skull discovered by Whitney in California. Unfortunately the description of this specimen has not appeared, so that doubts have on several occasions been expressed as to the existence of the fossil clay. The recent testimony of Mr. Pinart has removed these, but has, at the same time, created the most serious doubts as to the antiquity of this specimen, which seems to have been found in disturbed grounds.

In fossil skulls as in modern skulls, we find between races and individuals oscillations of a more or less striking character. They are often of less extent in known fossil races than in existing populations. For example, the cephalic index of the most ancient European race, taken from the Neanderthal man, in which the characters are exaggerated, is 72, that of La Truchere skull, which belongs to the last of the quaternary period is 84.32, a difference of 12.32. Now, between

the cephalic index of the Esquimaux (69.30) and that of South Germans (86.20) there is a difference of 16.90. This between the two extreme races, separated by the glacial period, the oscillation of cephalic index is less than between two modern contemporary races.

The Lagoa Santa skull, found by Lund, in America, and which I alluded to, effaces in a great measure the differences between the two. According to the Brazillian savants, its cephalic index is 69.72, descending almost as low as the mean index of the present Esquimaux.

Dr. Hamy has determined the measurement of the femur and humerus, of the Mentone skeleton 1.85 M. (6.06 feet.) The mean of the numbers found by Mr. Hamy, 1.764 M. (5.839 ft.) places the race of Cro-Magnon, *very near the Patagonians*.

Serres announced in 1854 that Mongolians were to be considered among the ancestors of inhabitants of France. Some time previously Scandinavian savants, connected with Laplanders, some round-headed skeletons discovered in the Neolithic tomb, and peat bogs of Scandia. Mr. Pruner Bey completed a theory, that there still exists at the present time a vast human formation which he designates, Mongoloid, because, connected in certain respects with the Mongol type, while in all respects, resembling white races. This great race occupies the greater part of the north of the Old Continent, and extends into America, and is found more or less in several isolated groups of South Europe, such as the Basques. Certain historical populations such as Ligurian's have belonged to it. It once occupied the whole of Europe perhaps, and was driven westward by advancing civilizations from Egypt, Arabia and India; and finally took refuge either northward as the reindeer did with the retiring glaciers, or with their horses, found refuge in the Western Hemisphere, now America, traveling by a strip of land, or a continent perhaps, not then submerged by the ocean, extending from Gibraltar on the Ligurian Peninsula, a way of which is left to-day, only the Canary, Azores, Martinique and other West Indian islands.

The glaciers at that early period which had extended far down over North America, as well as Europe, then

gradually slid northward, leaving behind them, huge basins of water, like our great lakes and Hudson Bay, and also the lesser lakes of Minnesota and Wisconsin. We shall therefore be more likely to find evidences of fossil American quarternary man, in the mountain caves, or river deposits, or alluvium of forests of the east coast of South America, then in Peru and Bolivia, or ancient Mexico, or any where else on this hemisphere.

In all probability this will be found to be the *origin* of the early races of America. The Incas and Aymarans of Peru were civilized descendants of that quarternary man, who had come to this continent on dry land from the Ligurian peninsula of Europe and who was afterwards forever cut off from any return. All the evidence of my studies on those ancient races, Incas, Mayas, and Aymarans, goes to show that there never was a migration to America from Asia, by way of the Behring Sea, in spite of what Le Plongeon and Putnam would say in favor of such hypothesis.

Dr. Brinton found no assimilation whatsoever between Asia and America. Nor did Holmes, of the Smithsonian. Brinton, has learnedly refuted the theory of any communication between America and Asia, in his article "On Various Supposed Relations Between the American and Asian Races," published in the *Memoirs of the International Congress of Anthropology*, in Chicago, he says: "I maintain, therefore, in conclusion, that up to the present time, there has not been shown a single dialect, not an art, nor an institution, not a myth, or religious rite, not a domesticated plant or animal, not a tool, weapon, game or symbol, in use in America at the time of the discovery, which had been previously imported from Asia, or from any other continent of the old world."

We are left therefore to the opinion that the immigration of man to America, must have come at a period in his existence before he had arrived at any degree of civilization whatsoever, that is in the quarternary period of his savage existence when he dwelt in caves, with wild animals.

There have recently been published interesting observations on "a stone-age" primitive tribe of Indians in Paraguay, South America, called Guayaquis. Perhaps they are the closest living descendants of those very Ligurians who im-

migrated to this hemisphere in quaternary times. Viscount de la Hitte, was the first to call attention of the savant world to these Guayaquis and their primitive culture. His first publication regarding them appeared in "La Nacion," Buenos Aires, 1895, and attracted vast attention in Europe. Mr. Chas. Von der Steinen, made a detailed extract of it, in "Globus," vol. 67.

Dr. Tenkate and Viscount Hitte, took a voyage to Paraguay for the Museum de la Plata and devoted several months to researches on this mysterious tribe. Preliminary comments were published afterwards by these gentlemen in the *Zeitschrift* of the Geographical Society of Amsterdam, May 3 and July 3, 1897, and in the *Tijdschrift van het Kon. Nederlandsch. Aardrijkskundig, Gevootschaf*, Leiden, 1897, and in the middle of the same year they published "Notes Ethnographiques sur les Indiens, Guayaquis, et Description de leurs caracteres physiques, Anthropologie, II. La Plata, 1897.

This last is the report which constitutes the base of informations about the Guayaquis, which Dr. Lehmann-Nitsche, the Director of the Museum, has studied.

Dr. Ehrenreich, has also published in the "Globe," January 29, 1898, an analysis of Dr. Tenkate's and Viscount Hitte's report.

This celebrated explorer of Brazil, and eminent anthropologist, has added his personal opinion on the different points and formulated an hypothesis on the ethnographic position of the American Guayaquis.

Dr. Lehman-Nitsche, the Director of the La Plata Museum, is kind enough to send me his own interesting article on *Les Guayaquis*, from which I have obtained these facts. According to an article entitled "Les Guayaquis" (*Die Guayaquis*) signed Baldomero Schulz, which appeared in the *Paraguay Runschau*, Dec. 12, 1894, the zone of distribution of the Guayaquis is the immense forest regions which are found in the eastern districts Villa Encarnacion, Villa Rica, Ajos, Carayaó, Union, and San Joaquin, near Haut-Parana. It is absolutely impossible to judge whether they comprise one or more tribes. No one knows the number of these *savages*. The author insists most particularly on their ferocious character. They flee like the Cainguas at the simple indication of

approach to them. Their precipitateness of flight is such that any one may encounter frequently in camps deserted by these savages, instruments and utensils, as well as arms abandoned by them. It is exceedingly rare that one gets near enough to obtain a view of them by surprise. I myself, says Mr. Schulz, had the good fortune to see, but only once, one of these fugitives. While surveying a gap in the woods, at the foot of a mountain of Villa Rica, my engineering corps laid down at the noon hour, and I had gone forward to reconnoitre a curious fall of rocks, when all at once, I saw at a distance of about sixty metres, a sombre figure, descend from a tree. In an instant it disappeared in the depths of the forest. I had only chance to observe that the indian was nude. The rapidity with which it was hidden from my looks left me quite confounded.

To give an idea of the extraordinary agility of these indians, Mr. Schulz, quotes the observations of an old man of Carayaó, whose veracity could not be questioned: "While still a young man", he said to me, "I was living at service on a farm of this country. One day, with some companions, I was occupied in minding the flocks, when we saw suddenly, and at some distance a group of Guayaquis, who hurried to reach a thicket near the forest. As the farmer, for some reasons to which I shall return by and by, held this tribe in horror, we were not sure, that they would not shoot us if we did not follow in pursuit. The savages arrived at the forest before even we could attack them. A single one among them was not able to get away. But, although the distance was so great, which he must run over on foot, before he could reach the forest, none of us, who were all well mounted, nor the dogs who accompanied us, could succeed in attacking this Indian who surely would have escaped us, if one of our party, had not had the presence of mind to hurl the *boleadores*, by means of which the Guayaqui was knocked down and made prisoner. This Indian, according to the witness was of medium size, naturally robust, and completely naked." This person was unable to give me further details. As to what became of him afterwards, he added, that he had been taken away to *Assumption* and that he never heard anything more of him. The degree of culture of these Guayaquis is very primitive. They nourish themselves

by the products of the chase, and with wild honey. Their arrow points, according to the testimony cited, are made of the wood *Yhira-pepi*, which is exceptionally hard. Their stone-hatchets have handles of a different kind, than that described by Mr. Hitte. As Mr. Schulz told us, for the purpose of getting their honey, they use a hatchet of blackish rock, (obsidian?) well polished, and whose handle is strengthened by means of cords, made of *Caraquata* soaked in wax. These hatchets naturally do not show a sharp edge; their effect being more like that of a hammer. By means of them, trees are hammered at convenient spots, so that the wood raises itself in the form of fibres, which they separate then with ease. I have often had occasion, says Mr. Schulz, to examine trees presenting openings of this kind.

The damage which the Guayaquis inflict upon the flocks, principally among the horses, explains the fury of the colonists in pursuing these savages. In nearly every region of the districts of Ajos, Carayaó and Union they become some time or another a veritable plague. There never passes a month not signalled by the sacrifice of one or more head of cattle. "During my sojourn at Ajos," says Mr. Schulz, "last year they killed successively, by means of their arrows, five horses, among these a magnificent one with white mane and tail, of the chief of police. There were weeks when they signalled anew their presence by the execution of five head of cattle at the farm of Rosarito (Department of Union), of which only two had been used. Of the young bullocks thus killed they only took away the posterns; this part probably because it presented the least difficulty to their dull blades for separation."

The pursuit of the savages when wounded, through the thickness of the forests, is generally without result.

Another article appeared in the same journal, *Paraguay Rundschau*, May 7, 1895, entitled: "A Contribution on the Character of the Guayaquis" (*Ein Beitrag zur Charakteristik der Guayaquis*), and signed M. Mangels. It contains nothing useful for ethnography.

In a publication which I received from Mr. Mangels, he repeats his comical affirmation as to the stature of these savages, whom he considers as dwarfs. The other part of his article contains only a detailed description of his personal adventures

on the voyage. The relator and his company had advanced across a thick part of a forest, and upon their return found in front of them that the forest was on fire. This crime they naturally attributed to the Guayaquis, although none of the party could see them. Mr. Mangels has not while in the country ever seen a Guayaquis. It was by the great kindness of Dr. Endlich of Leipzig, who, after a long sojourn in Paraguay, and while visiting the museum of La Plata on his return from a visit to Europe, that Dr. Lehmann-Nitsche was able to get some real information as well as the beautiful photograph of a Guayaqui child, which I reproduce in this paper. Dr. Endlich recounted to Dr. Lehmann-Nitsche that which follows: "On the road from Carayaó to Union is the farm of San Miguel. One day in February or March, 1898, the administrator of this farm saw a column of smoke in the forest. He went to the spot, and found a woman with two children. Without any provocation, and according to the custom in Paraguay, some people, who call themselves Christians, kill these Guayaquis when they come upon them. He wounded the woman, who took to flight and escaped. One of two children, a boy aged about eight years, fell dead."

Dr. Endlich succeeded in obtaining the cranium and the rest of his skeleton, which he destines for the Ethnographical Museum of Leipzig (!), as well as a quantity of other objects of Guayaqui collections from Paraguay. The other of the two children, a girl of four or five years, was taken to San Bernardino, where they will educate her. They gave her in that place, where she will receive the first benefits of our Christian civilization, the name of Miguela.

Dr. Endlich took, about two months later, three photographs, which we give in the plate. In the first two photographs the naked child is seen face to the side. She has around her neck a collar made of perforated teeth identical with those represented by Mr. Hitte. Dr. Endlich assured Dr. Lehmann-Nitsche that these necklaces are made of the teeth of monkeys, and this was the only ornament that Miguela wore at the time of capture. In the third photograph the child is shown without the collar.

Miguela is corpulent, her pot-belly is prominent, and the knees slightly turned inward. The physiognomy gives the

impression of good humor and of confidence, barring a certain inquietude, due to the experience of having her picture taken. The body presents infantile proportions. The head is big, rounded, high; the forehead vertical, well developed and without deformations. The hair is apparently plentiful; the face round and full, as is well seen in the figure 3 of the plate.

The basket-cradle was also rescued in the sad scene, with Miguela taken there, right in place, as was her habit. The photograph indicates therefore the method among the Guayaquis of carrying infants with this difference only, that the carrier here is not an Indian. A similar basket has been also shown by Mr. Hitte.

The face invites more study of it. It is round and full; the forehead high; the eyebrows very strong; the eyes are bridled more or less in form of a button-hole, and appear horizontal; the folds are strongly *Mongoloid*. The distance between the summit and the internal angle is sufficiently great. The rest of the nose is depressed, making projection only towards the median part of the region which separates the orbits. The nose itself forms a prominence, a little elevated at the surface of the face, and enlarges at the base. The lips are strong; ears normal, well developed; lobes show no defect, but they are sessile; the helix is well turned in all its circumference. Darwin's knot is apparently deficient.

The prognathism is not readily recognized.

It is fair to remark that the typical characteristics enumerated here have been recorded also by Dr. Tenkate. Here is what he says about the physiognomy of the Guayaquis photographed by Viscount Hitte in 1894: "The eyebrow, arcade strongly developed; the depression at the root of the nose broad and flat; the buccal-maxillary prognathism very pronounced; the nose appears to be slightly concave; and the chin, standing a little tapering, strongly developed."

As to Maurice Posdeley, he relates, among other things, "that the general aspect is *decidedly Mongoloid*; the eyes bridled; the nose in profile slightly convex; the upper lip a little reversed outward, accompanied by a certain degree of prognathism; the lobes of the ear sessile."

Antonio Arzamendi says: "The lips more gross than fine; nose concaved in profile; eyes bridled; lobe of ear sessile."

Damiana says: "Nose is a little turned up; lobe of ear sessile on both sides. The upper lip is reversed behind."

All these characters were found more or less equally accentuated in Miguela, and are besides also in harmony with the description which was given us on the Guayaquis by another experienced observer, Dr. Tenkate. The great uniformity of the type should attract particularly our attention. I have not been able to participate in the opinion that this type is related to the Mongoloid. From my point of view, as I have already expressed it, this kind of isomorphism does not furnish us yet any point of appearance in favor of the hypothesis of a blood affinity *between the tribes among which it has been observed*.

Dr. Ehrlich has obtained, moreover, some information relative to the language of little Miguela. Sugar was not to her taste at first. She refused it by the word "ote." On examining the skin of a snake, she pronounced the word "membo." She designated the skin of a frog or of a stuffed sand toad by the word "avatevote." A hatchet (of stone), "uyupaty;" the gourd, "guacu;" and the egg, "piya." It is evident that the word "avatevote" contains also the word "ote," pronounced in the same moment, when she refused to take the sugar. It is hardly doubtful that the word "ote" is a term expressing repugnance.

As little sure as may be these words, yet unknown, I have been agreeably surprised at finding among those of the list given me by Mr. Charles de la Hitte the word "membo," for serpent, although it has not yet been verified by the Cacique of Cainquas. This word, which we now know from sources absolutely independent, may, in my opinion, be considered as an authentic Guayaquis word. This permits us also to accord to the words marked with an asterisk in the list of Mr. Hitte a very high degree of authenticity. On the other hand, the fantastic communications of the wise general, F. Labille, "Guayaquey Anamites," are always least justified.

Dr. Ehrenreich has entered into a discussion over the word "Ku," the word pronounced by an Indian Guayaquis when Mr. Hitte showed him his photograph, and, in effect, running down the hypothesis that the Guayaquis represented a tribe of Ges, which he had sought to demonstrate. Professor Brinton (The Linguistic Cartography of the Chaco Region),

in a recent publication, abstains from pronouncing judgment on this hypothesis. Unfortunately I have not been able to find in any of the published vocabularies by Von Martin, Von den Steinen and Ehrenreich of the different tribes of Ges a word resembling "membo," an authentic Guayaquis word, nor the word "ote." We find ourselves, therefore, in presence of an enigma. It is, however, possible that we may shortly arrive at a solution of it on the return of Mr. Boggiani, who just now, they say, is in Paraguay occupied with these researches.

The opportunity to make further observations on Guayaquis children, judging by public notices, is becoming easier. A child, whom he has not yet examined, was found, according, to a communication made to me by Dr. Endlich, in the village of Carayaó, where he is being educated in the house of a Paraguayan. This child is eight years old, and speaks naturally the Guaraní language. He was captured with an adult Guayaqui, who had received a projectile in the buttocks. This adult could not be made to understand the Guaranis by their gestures. It all ended in his being given his liberty to go where he liked.

Ethnological objects are also obtained with ease in Paraguay. They are encountered already in various collections of Europe. Dr. Endlich has given his own collection to the Ethnological museum of Leipzig. The collection of a school at Trier (Germany) has been enriched lately, I am assured, by a donation from Mr. Charles Revercher of the Villa Encarnacion, consisting of a beautiful series of Guayaquis objects. The most important collection, however, to be found in the world is that of the Museum de la Plata in Buenos Aires.

An examination of two crania of the Guayaquis by Dr. Lehman-Nitsche, of Museum de la Plata, Argentine, as follows: He applied the indications of the Convention of Frankfort (German School of Anthropology.) In the first of these crania, (sex undetermined) the naso-alveolar height, (Obergesichtschohe) 74 MM; supra-auricular (Ohrhöhe) 118 MM; angle of profile at the middle of the display of Ranke, 80 degrees.

The cranium of the poor old woman who was assassinated has furnished me these measurements; supra-auricular height, 123 MM., height of face, mento-nasal, 92 MM., more or less; naso-alveolar height and angle of profile are indeterminate.

From Robert Lehmann-Nitsche—INDIENS GUAYAQUIS. Rev. del Museo de La Plata.—Tome IX.



1



3



2

L'Enfant Guayaquis—Miguela.

Dr. Lehman-Nitsche says: Anthropologists who defend the principle of craniometry, can also calculate the indices and make the corresponding deductions. For them, following the nomenclature of the Convention of Frankfort, the first of these crania is brachy-cephalic (index 81.1, modified after Ammon, 81.6,)*hypsi-cephalic (index vertical, 78.9; calculated according to the auxiliary height, Mesorrhinen index 48.9; †hypsi-conchous, index 101.6; lepto-staphylin, index 60.0; the index of the occipital foramen, is 76.5; the superior facial index (Jochbreiten Obergesichtshohen index), according to Broca, 67.9; following the indications of Frankfort, 56.1. One may see that the superior face is leptoprosopic (dolicho-facial) or rather according to Mr. Weissenberg (Ueber die Verschiedenen Gesichtsmasse und Gesichtindices ihre Entheilung und Brauchbarkeit 1879), between the Chamœoprosopic et Leptoprosopic. The index *passe*, 55.0. The cranium is, beside, prognathous. The cranium of the old woman is brachy-cephalic, (index 81.5; modified according to Ammon, 82.0); hypsi-cephalic vertical index, 77.5; calculated according to "auxiliary height") platyrrhinein index 53.3; hypsi-conchous, index 94.4; lepto-staphylin, index, 61.2. The index of the occipital foramen, is 81.9; the total facial index, according to Broca, 96.2; (dolicho facial), according to the Convention of Frankfort, more or less, 73.0, chamœo-prosopic); according to the Weissenberg ultra chamœoprosopic).

To complete these osteo-measurements given, I shall add, that the indications which figure in the work of Dr. Tenkate relative to the antero-posterior and transverse diameters, below the little trochanter of the femur, have evidently suffered an error in printing. I have obtained the following figures. Diameter ant-post between the little trachanter.

	Right	Left
	18.	18.
Diameter transverse,	27.	27.5.

There results for the right femur of the skeleton of the old woman, the Mérique, index, 66, and for the left, 65.5.

Let us now cross the Atlantic Ocean and study man in his original home, before he left Liguria to come to this hemisphere.

*Hypsi-cephalic—Vertical index over 75.

†Hypsi-conchous—Orbital index over 85.

The science of anthropology tells us that the Celts of Western Europe were a blond, brachy-cephalic people. They appeared at the Neolithic epoch and lived during the age of bronze, side by side with the Kymri (Gauls). Prof. Sergi, of the University of Rome, has described some so-called Ligurian skulls, to determine their ethnic position; being round-headed he thought them Modenese and not Ligurians at all, for his own authentic Ligurian skulls, were long-headed and very like the Iberian type (not Turanian at all) which Siret unearthed from the Neolithic deposits of southern Spain. In southern Sicily, Neolithic skulls have identical peculiarities, so that the ancient Sicali and Secani, who held that region before the Greeks came were branches of the one stock, and both of them were outposts of the same Ligurians, who in proto-historic times occupied most of the coast of the Mediterranean Sea from the Straits of Gibraltar to the tip end of the Italian peninsula. For this the Sicali, Sicani, Liguri, Iberi, (ancient ethnic names) all refer to branches of the same stock. The cave men of Mentone and of the Arene Candide in Italy, and of Cro-Magnon, in France furnish specimens of the Ligurian cranial form.

The Arabs distinguished that portion of Africa, west of the Nile valley and north of the south boundary of Sahara, from the Soudan, Beled es Sudan (Land of the Blacks). They called it Mahgreb. From time immemorial this has been the home of the Berber, or Hamitic, or Proto-Semitic peoples. The complete pre-history of this region has been given in the *Revue Scientifique*, by M. Chateler. Signs of Palaeolithic man abound everywhere, carrying his residence into the quaternary, where climate and water were very different. (Constadt race). He was succeeded by Neolithic communities, who developed the art of stone implement-making to perfection. The Neolithic industry continued to nearly the Christian era, flint chips being found intimate of Roman remains. There are also rock drawings belonging to this period, rude, but revealing Egyptian inspirations, ibis head, etc. The most striking features are the megalithic structures, dolmens, menhers, cromlechs, triliths, stone circles, etc., which are abundant over the soil from Fez in Morocco, to the Tripolitan plateaux, where they abruptly cease, *none extended into Egypt*. They were undoubtedly constructed by the ancestors of the present

Berber populations. They are claimed to be the tombs of their forefathers and they even construct identical ones in their cemeteries today. They were in common use to a late day. This is shown by the discovery in some of the dolmens, of iron and Roman coins. That these coins were not intrusive is proved by the presence of structures of the same characters in southern Tunis, built *on an old Roman road*.

That precisely similar Megolithic remains are found in Palestine is explained by the presence there of the Amorites and other Hamitic tribes, that they can be traced in continuous line across the Straits of Gibraltar, through northern Spain and France, to England and Denmark, *and not beyond*, offer a suggestive note concerning the pre-historic migrations of these Mediterranean peoples. M. Chateler has informed us that this same Berber stock has possessed mahgreb, (the Land of the Blacks) from the very earliest times of which we know, down to the present day.

The earliest civilizations of the Mediterranean were derived from Asia or Egypt and previous to the mythical advent of Cadmus or the founding of Carthage and Rome, the coasts of the great sea were peopled with savages. In fact one of the most brilliant periods of commerce and culture on the Mediterranean was about 1500 B. C. There were several cities on the European shore of high civilization. On the southern shore, the Hamitic Libyans, and Mauritians had reached a degree of culture quite equal to the Egyptians.

Mankind in western Europe can be traced steadily advancing through continuous culture from the rudest period of chipped implements of stone (quaternary) to an epoch, when he learned to polish and bore that material (Neolithic) and finally threw it off to arm himself with a blade of glittering bronze. Triangular stone celts are found even in Denmark. In France and the Iberian (Italian) peninsula, we can trace these relics of him farther back in the past than in northern Europe. Hence we reason that these parts were inhabited first, but as a post-tertiary event, according to Topinard, Cartailhac, and Bertrand.

In Neolithic times widespread migrations took place. More than 1200 years B. C., Mr. Bertrand thinks ("Nos Origines") the Ligurians came down from some where up north and con-

quered the littoral of Spain, Gaul, Italy and Sicily. The interior of France, and the Iberian peninsula was then peopled by "Iberians." Not far from the same date, these were driven *westward* by inroads of the Celts. He says that there are no relics attributed to the Ligurians or French Iberians, and his theory is hardly more acceptable than that of Virchow who said that the Ligurians were Turanians.

There are certain things that he never brought to America, therefore, he must have emigrated *before* they were known in Liguria. Thus Schweinfurth, *Verhandlungen der Berliner Anthropol. Gesellschaft*, has by finding them in tombs or mentioned in his inscriptions, shown that very ancient relations existed between Egypt and the east coast of Africa.

The three earliest and most valuable cereals, wheat, barley and spelt were introduced from Babylon. The fig was imported from South Arabia, its native home. From Persia came the pomegranate and henna, used as a cosmetic by the beauties of the earliest dynasties. From remote India came rice, sorghum, sesame, and the sugar cane. All these exotic plants were familiar to Egyptians at the beginning of their history and testify to active and far reaching commerce before the date of Menes. Indian corals and pearls were found in Central Africa, the shape of the hand-axe, the musical instrument called Marimba, the use of the betel nut, the worship of fire, traces of a caste system, these show wide extension of pre-historic commerce, but always in the same direction, from India and Africa, and none of these went with Ligurians to ancient America.

The Auvergnats and Savoyards of western Europe had as ancestors the Celts of Cesar. They were philologically Ligurians; related especially to Lapps and Finns, and their original language was that represented by Basques, having acquired the Celtic dialect from the *tall, brachycephalic race* which conquered them and drove them to *the south of France*. Now, there is evidence that the tall, fair, brachycephalic people, whose remains are found in the round barrows of Britain and and in the graves of Belgium, France and Denmark, spoke the original Celtic tongue. They were Belgic Gauls, and they overran France, conquering the *short, dark, brachycephalic* Ligurians and imposing their language on them. The Ligur-

ian language *ancestral* to *Basque* was related to the Ural-Altaic group, which could not survive contact with Aryan speech of the northern race. The best type of the conquering race to-day seen is the Dane and Slav, especially Lithuanian. The tall, dolichocephalic, blonde type is represented by the Swede and fair North German, called the Scandinavian type. The Anglo-Saxon and Teutonic tribes belonged to this race, and their speech was ancestral to the German and English.

Broca believes that the small, brown brachycephalic Celts were mixed type, while the true and primitive type, which was called Kymric, was one of tall stature, with reddish or blonde hair and dolichocephalic cranium.

Colignon (Société d'Anthropologie) has pointed out the persistence of these various physical types in portions of France for many centuries, *even for thousands of years*, as an examination of ancient sepulchres has proved.

Quatrefages (Fossil Races) tells us that of tertiary man we have but few traces, discovered in France, Switzerland, and especially in Italy.

Of quaternary man we have plenty of knowledge through the accumulation of facts by Mr. Hamy. The quaternary or glacial period imposed severe restrictions on man's existence. The animals present were the mammoth, the woolly rhinoceros, the gigantic Irish elk, the cave bear, the cave hyena, the cave tiger, the horse, the reindeer, the elk, the musk ox, the European bison, the hippopotamus and the lion. All these animals lived side by side during the quaternary period. Now in France only the horse remains. Man, in Western Europe, was contemporaneous with all these species. During the deposition of the lower alluvium the mammoth, rhinoceros and great carnivora disputed with man the ground, and he fed upon their flesh. The struggle of life then was terrible, and savage quaternary man is found along with these animals, which were finally *driven to Africa* after the glacial period and the *ocean had risen* and walled back the Polar Sea, which extended to France. No fossil skull belongs to the African or Melanasian Negro type. The true Negro did not exist in Europe during the Quaternary period. Because the Ligurians of ancient France are designated "Mongoloids," represented by the Basques, it does not follow that the ancient races of France

came from China. Nor was man of this early period less human than he is to-day; pithecoïd man is not to be found in France, but is in Java, or nearer the Himalayas. All the bones of the human skull are found in western European fossil skulls, and there is found human character in the predominance of the cranium over the face. The Neanderthal skull, the most brutal of all, had a capacity of 1,220 cubic centimeters, equal to Malays and superior to Hindoos. The Neanderthal skull was discovered in 1857 near Dusseldorf. Its peculiarity was exceptional development of superciliary ridges, like anthropomorphous apes possess. But the same peculiarity was found in other remains of less ancient times, and even of present times.

This belonged to the Canstadt race, the most ancient European one. It disputed the ground with the great extinct animals. It belongs, therefore, to the earliest age of quaternary epoch. According to Schaaffhausen, it may be traced to an earlier date, even that of tertiary man in France. The Canstadt type of man is found in the cemeteries of Gallo-Roman period, from Scandinavia to Spain, Portugal to Italy, Scotland and Ireland to the Danube. Mr. Hamy thinks that there probably exist in India, in the midst of population driven back by the Aryan invasion, representatives of the Neanderthal type. In Australia there is a type of man, near Victoria, with characteristics of the Canstadt race.*

In 1858, in the valley of Vézère, France, there were found the bones of three men, a woman and a child. Mr. Lartet determined the age of the deposit of the rock shelter of Cro-Magnon. The skull of the man was remarkable for its capacity—1,500 cubic centimetres. The Cro-Magnon race was discovered immediately *above* the alluvial deposits of the Canstadt race deposits. It was a more sociable and more settled race than the preceding race. It inhabited caverns, where it left traces of its handiwork. It buried its dead under shelter, and therefore had a religion, and dates from the age of the bear in France. These people fed upon the mammoth bear, lion and cave hyena, as shown by their kitchen middens. They used a bow and arrow for small game and birds, while

*Neolithic trepanation is shown on ancient skulls, of nearly all Pacific islands, likewise in Patagonia and Bolivia, and in mound builders of Michigan. Did paleolithic man migrate even further than America?

they hunted larger game, *especially the horse*. Bones and antlers of the reindeer were cut into weapons much finer than the Canstadt race's stone weapons. They pointed needles and made eyes in them, and they grooved their arrow-heads for poisonous substances. They used fire to cook their food, but had no potteries and no oven. He was not a cannibal, but brought the head of his enemy home—perhaps used the brain in his pottage, as the Philippine islanders do now. He prepared deer skins like American Indians. They had a taste for adornment.

Quaternary man of France domesticated animals, for a grave of 40,000 horses was found, killed at the age of four to eight years. During the reindeer period of the quaternary epoch the Cro-Magnon race of France was self-supporting. But from the second half of the quaternary period finished flint cutting came in vogue. A continental climate was now succeeding; warm summers followed winter. Animals went to altitudes, and followed the glaciers to high mountains. The reindeer emigrated in latitude and not in altitude; he went north. His herds became rare. The human race's staff of life was thus taken from it. *Man emigrated then with the animals which were necessary for his support*, and there is now a great gap in human habitation of France. DID HE THEN GO TO AMERICA? In the lower bed of the Sorde, in Basse Pyrenees, was found a human skull and bones, with a necklace of the teeth of the lion and bear; and immediately above, and mixed with the latter, was a layer of charcoal, from which was taken by the discoverers barbed arrows of the Magdalenian type, and instruments and implements of the same age. Bones of the horse and ox were here also. The reindeer was rarer than the others. Above the charcoal there were human bones, cut flints, a narrow, thin blade and a triangular dagger of *polished* stone. Thirty individuals were buried here, who, Mr. Hamy said, were of the Cro-Magnon race. Quatrefages confirmed this opinion, as these were classical with the works of Broca and Pruner Bey. Here were two archæological types, the cut stone or paleolithic, and the polished stone or neolithic, with *one* human race, the Cro-Magnon. Thus this race knew both the latest reindeer age and the earliest of the present epoch. This little tribe of the Sorde, therefore, had benefitted by an invasion which had occa-

sional crossing, otherwise they would not have learned the new industry.

In a cave near l'Homme Mort of Lozère, Broca and Pruniere found animal bones of the present epoch, with neither reindeer nor horse, ox or stag, with the head of a lance worked, and a fragment of polished stone hatchet. This population must have been long posterior to the quaternary period, and contemporaneous with that which built the numerous dolmens in that neighborhood. The stature here of the Cro-Magnon race is diminished, the face is less striking. But a foreign feature is observed—the olecranon depression of the humerus is perforated in a proportion of 26 per cent. This shows *crossing* of the race, as well as change from animal food to vegetable, for the soft bones of the elbows wore holes in them, by pressure from grinding corn.

The Cro-Magnon type is observed in Basque skulls, collected by Broca and Vélasco. Among men there, as among animals, at the close of the quaternary period, some went north and others went south. During the quaternary period the race of Cro-Magnon had its powerful European centre of population in the southwest of France, with colonies, so to speak, in Italy, the north of France, valley of the Meuse, etc. But they were perhaps only a branch of an African population which had emigrated to France with the hyena, the lion and hippopotamus. Thus we could explain its existence at the present day in northwest Africa and in islands protected from crossing. Some of the tribes carried away in pursuit of the reindeer will have preserved in the Scandinavian Alps the tall form, blonde hair, and brown complexion, which distinguishes the Dalecarlians: others, mixing with all the races which invaded France, betray their ancient existence by atavism, which lays upon some individuals of the old hunters of Perigord.

Prof. Henry C. Mercer, Curator of the Museum of American and Pre-historic Archæology in the University of Pennsylvania, in a lecture delivered before the Society of Arts of the Massachusetts Institute of Technology, 1896, entitled "Cave Hunting in Yucatan," says that Yucatan promises to solve the American problem. The Mexicans were lofty mound builders, and the people of the Ohio Valley constructors of such great and elaborate earthworks as you see at Marietta, etc.; but the

carved palaces of the Mayas, overloaded with mysterious symbolism, whose ruins still astonish the travelers in the forests of Yucatan, exceeded everything. We had a notion of a sort of civilization older than that of Mexico, buried away in the wilderness; of something that even the Indians had themselves forgotten when the Spaniards came; of something more ancient, more elaborate, more marvelous in Yucatan than anywhere else from Behrings Straits to Patagonia; and when we learned from Prof. Heilprin that in the very midst of these awe-inspiring ruins described by Stephens and Waldeck, by Charnay and Maler, there were abundant dry and spacious caverns which none of these travelers had explored, it seemed as if we had the question of man's antiquity in America presented to us in a nutshell. There, where man had reached the highest point of semi-civilization, or barbarism, in the new hemisphere, it seemed as if all the doubts as to his antiquity could once and for all be set at rest. If he was old anywhere, he was old there. If the American problem could be settled anywhere, it could be settled in Yucatan.

But what is the American problem, and why settle it? Has it not been settled before? Do we not know how old the Indians are? Have we not the Calaveras skull and pestle and mortar excavated from the bottom of gold mines? Have we not the Trenton "turtle back," chipped by human hands, and gathered from a bank of gravel on the Delaware River, which, by the last of the geological time estimates, should be 32,000 years old. Dr. Koch's spear-heads, with mastodon remains, chipped blades from the beds of fossil lakes, and a dozen other evidences of man's great antiquity—do they not prove that long before the Indian, as we know him, we may look back into the geological past and behold humanity here, as in Europe, a contemporary of the mammoth and the mastodon, the sabre-toothed tiger and the fossil horse? Let it be answered that, in spite of evidence thus far presented on the subject, we are still in doubt, if not in darkness. Let him who supposes that all these things described and recapitulated in the introductions of recent text-books and histories are proved and settled try to investigate them for himself. When he does, he finds that what he regarded as well-fixed facts fade away like stories of ghosts and haunted houses at near approach. He

learns that while in Europe it is an easy matter for you or me to step upon a railway train and go to any one of a score of sites where human remains can be found at short notice with the bones of extinct animals; here, on the other hand, we may assert that no explorer will venture to lead us to-morrow or next week by a journey long or short (which some of us would willingly take) to any point whatsoever, east of the Mississippi where he can guarantee us a sight of fossil man or of one of his implements in place. As far as America is concerned, *homo fossilis* is desperately hard to find.

[Concluded in next number.]

INCIDENTS OF THE MENOPAUSE.*

BY WILLIAM HENRY, M.D., HARMON, ILL.

Climacteric, critical time, menopause, doging time are some of the terms given for the change of life. There are many irregularities at the menstrual periods. The time from commencement to the ending of the menstrual periods is about thirty-five years, yet there are exceptions to this rule; the time may be longer in some and shorter in others! Although the importance of this epoch in woman's life has been denied by Tissott, Deraes, Meisner, Sancerott and Landouzy. Their opinion is not held by the profession as is evident from the writing of Fothergill, Sir C. N. Clark, Dr. Meigs and Dr. Gunning S. Bedford. The last named author has truly stated that in addition to the structural and malignant diseases so frequent at this period there are many forms of eccentric nervous disturbances, various forms of temporary or permanent paralysis and also a variety of simple nervous forms of inanition involving no particular reason, but numerous beyond calculation. Les France has completely adopted the popular belief in the dangers accompanying the change of life and Moreau de la Saithe says that the change of life is characterized by headache, syncope, leipothemia, general or local spasmodic affections, hypochondriasis, as are various symptoms of hysteria and of insanity.

We find that the change of life has a vast influence on the

*Read before the Lee Co. Medical Society at Amboy, Ill., Sept. 29, 1903.

health of women. Some admit with Voisin the frequency and singularity of nervous affections at the menopause, but they deny that they are caused by the retention of a few ounces of blood. Whereas it is contended that the cessation occasions only physiological or morbid disturbances are induced by structural changes progressing in the ovaries and uterus by their various reactions on the nervous ganglionic system.

Benviston de Chateauneuf and Odeir de Geneve have shown that taking a large number of women between the age of forty and fifty years compared with a similar number of the opposite sex at the same period of life the rate of mortality is greater among the males than the females.

Those who deny that the change of life is a critical period in the life of the female argue as if critical meant fatal.

In medical language crisis means a gradual change leading to some decisive action for better or for worse to recovery more often than death. Most of the cancerous affections of the mammary glands, uterus and the ovaries are at this period in the life of the female. Dr. Meigs says too little regard is paid to the crisis; a physician, he says, has no right by his opinion to put to sleep the anxieties of his patient whenever a female at this period, which is universally admitted to be a critical and dangerous one for her, comes to complain of symptoms referable to some morbid condition of the reproductive organs. It is clearly his duty to give considerate attention to her case and not to dismiss her until his judgment should be fully satisfied that the therapeutical or hygienic indications of the case are fully understood, as to what is the best thing to do in this particular case, as no two cases have the same symptoms or require the same treatment. In the special pathology of the change of life the diseases of the ganglionic nervous system has its three divisions which work for each other, complete each other, and any damage done to the one is to the other.

The three persons of this trinity are co-equal; during the time of the menopause the ganglionic nervous system seems to rise and fall like waves; the nerves of organic life are constantly changing at this period in the life of the female.

The whole nervous system seems as though it were out of repair; at this time the nervous system seems to control every organ of the body; in the whole physical organization there

seems to be a general convulsion of nature, everything is changed, the woman is not herself.

Marshall Hall said of the ganglionic nervous system that it was another open field requiring renewed culture and promising a rich harvest to the laborer. He admitted that the surgical shock and accidents told chiefly on the ganglionic nervous system, but doubted whether disease originated in the nervous shocks. Ganglionic neurasthenia often occurs without our being able to trace its origin to any particular part of the body.

During this period in woman's life there are often epigastric pains; there will often be neurasthenia of the muscles; a sensation of numbness, peculiar sensations in the heart and lungs. In some cases there will be hematemesis, epistaxis symptoms of an asthmatic nature so that they want to be fanned; there is often a sinking feeling in the stomach a sensation of goneness, fainting spells, hot flashes, sometimes loss of consciousness is a symptom. In many cases there are excessive sweats, the extremities become cold and clammy, again they seem to them abnormally dry and hot; pruritus in some cases becomes very annoying to the person, the itching is almost intolerable, at times scratching does not seem to relieve it but only makes it worse.

There are often fits of laughter and crying which come on without any apparent cause. Some become suspicious of their best friends, think that they are against them. In some cases there are leg ulcers which become very annoying and are hard to heal; I have a lady patient now who has an ulcer of one of the lower extremities which has been troubling her for some time; it does not want to heal; at times it pains her very much especially if she is on her feet. She is past forty-seven years old; she has many symptoms referable to the change of life. Some have urticaria in a severe form which is very annoying, at times the itching and burning sensation being very severe. It comes on about the time the menses should appear, lasts for a day or two, and then disappears for a time. I had a case some years ago that during the menopause the lower extremities seemed to fill with blood, one more than the other. It would swell so that the skin would burst open and the blood would flow so as to fill her shoe, run over on the floor in pools of blood; could stop it by bandaging. This happened twice during the menopause.

But as soon as the change was passed over, she was a well woman for several years and increased in flesh.

I had another case who would get such spells of a nervous type that she seemed to be so put to for breath that her family were very much frightened. They had to fan her as fast as they could as they thought to keep the breath in her, thinking that she was dying. The only way I could control her nervous symptoms was by the use of bromide of potassium. After I had poured two or three large doses down her, she was soon herself again until the next time the menses began to appear; when the change had passed she became a healthy woman and increased in weight.

There are often neuralgic pains in the uterus and ovaries; in many women fatty tissue accumulates in the abdomen; at the change some have diarrhea, others are constipated. There are many more peculiar symptoms referable to the nervous system at this time; a woman is very easily excited, irritable, which they cannot control. Some contemplate suicide, thinking that they are in the way and they would be a relief to their friends if they were gone.

THE MODERN TREATMENT OF TYPHOID FEVER.*

BY WILLIAM E. RICE, M. D., OF TUSCOLA, ILL.

Secretary Douglas County Medical Society, Surgeon Illinois Central and Clin., Ham. & Dayton R. R's.; Member Illinois State Medical Society; American Medical Association; International Association Railway Surgeons.

The title of my paper is misleading. I intended only to report my experience in four cases of typhoid during the past season.

I think we nearly all agree as to the cause of this malady; that it is the bacillus of Eberth; that the symptoms are due to the absorption of the products of the bacilli, and that in the successful treatment of the disease we strive to eliminate the toxins from the system by that method which is the least objectionable to the patient, and which will return to him his

*Read at the fifty-sixth annual meeting of the Aesculapian Society of the Wabash Valley, Tuscola, Ill., May 28, 1903.

physical and mental strength by the shortest and quickest way, without impairing his vital powers.

For years we have tried the various intestinal antiseptics with the one idea of cutting short, aborting, or ameliorating the symptoms of the disease, but with very little success until recently, when Professors Freer and Novy, of the University of Michigan, discovered Acetozone, a non-toxic germicide, which I firmly believe is the present typhoid antiseptic. It is my experience in the use of this substance that I wish to relate.

The four cases reported below terminated with very happy results. In each case no other medicine was used but Acetozone, after it had been prescribed, except an occasional dose of mild chloride of mercury or some other mild laxative to keep the bowels active and thereby to assist in carrying off the poison. Each case was undoubtedly typhoid, as all the symptoms of the disease sooner or later appeared; viz., increasing fever; dry, hot skin; parched, dry and furred tongue; tympanites; gurgling and tenderness in the right iliac fosea, and the typhoid rash.

Acetozone powder was used in all cases with the exception of one. I much prefer the solution to the powder, but as there were no ice chests in the homes, we resorted to the powder. In the use of the solution I think we get a better diuretic effect than otherwise, the only objection being the burning or peppery taste which may be overcome, to some extent, by adding a few drops of the oil or extract of orange.

My observation has been that in a few days the tongue becomes moist and clear, tenderness and tympanites rapidly disappear, the typhoid odor of the stools is vanquished, no deleterious effect on the heart is observed, the secretion of urine is increased, thereby carrying away poison to a certain degree, that peculiar odor which is emanated from the body of the patient is wanting, and last but not least, the duration of the disease is shortened, convalescence is rapid and many of the bad symptoms of the past *are of the past*.

CASE A.—Found patient with temperature of 104° , furred tongue; dry, hot skin but no tenderness. Gave mild chloride and the next morning twenty-four grains of quinine sulphate, divided in three doses; sponge baths; evening of second day temperature was 104.5° , tympanites and tenderness.

Continued routine treatment until the end of the sixth day when I could see no change. Commenced the Acetozone, giving twenty grains of the powder during the twenty-four hours. At the end of the second day of this treatment the temperature began to gradually drop. At the end of the seventh day it became normal, and so continued.

CASE B.—Complaining for one week. Found temperature 104° ; headache; coated and parched tongue; tympanites and tenderness in the right iliac region. Gave mild chloride followed with guaiacol carbonate, for three days, without any apparent effect. I ordered Acetozone in the powdered form, in same dose as in the preceding case. Temperature began at once to drop until the ninth day, when it became normal and convalescence was established.

CASE C.—Had been complaining one week with headache, fever and chills. When called, found tongue coated, headache, temperature 103.5° , tympanites and tenderness, and inability to sleep at night. Gave mild chloride and the next morning commenced the Acetozone. The temperature was now 102° . Gave the solution—twenty grains to the quart of sterilized water—two ounces every two hours. At the end of the eighth day temperature was normal and convalescence established.

CASE D.—Had been complaining for some three or four weeks with diarrhea and general malaise. When called, found temperature 102° . Some tympanites and tenderness in right iliac region with eight to ten stools daily. Temperature rose to 104° on the third day, when I commenced the Acetozone, giving twenty grains during the day. On the eleventh day temperature became normal and convalescence was speedy.

Since the above cases occurred I have used Acetozone in two cases. In the first the fever was abolished in five days, and in the second case in eleven days.

Leper Colony in Good Condition.—The annual inspection of the leper settlement on Molokai was completed July 20. Everything was reported in a satisfactory condition. Ten persons were found free from the disease and were released. Confirmation of the diagnosis of leprosy was announced concerning a number who had protested that the diagnosis was erroneous.

CLINICAL NOTES ON DYSEMIA.*

BY LOUIS J. GRAVEL, M.D.,

Physician-in-chief to the Hôtel Dieu Hospital and Chief of the Laboratory. Montreal
Canada.

The word anemia is a misnomer and serves to perpetuate an erroneous idea of the condition to which it is applied. It has its origin at the time when scientific medicine was in its infancy; before the microscope and other instruments of precision had elucidated the physiology and pathology of the blood and blood-forming organs. In those days the pallor of the skin and mucous membranes was attributed to "a diminution of the amount of blood," and even at the present day there are physicians who still share in this fallacy. From a pathological standpoint, the chief features of the so-called anemic state, are the morphological and chemical changes in the blood—its qualitative deterioration. It, therefore, has been suggested that the term dysemia (bad blood) would more closely describe the conditions present. However, a word which has the sanction of usage for so many years cannot be easily displaced, and will probably long survive in medical nomenclature.

There is only one criterion on which to base a diagnosis of dysemia, and that is the changes in the blood: The other symptoms to which much significance was formerly attributed—pallor of the skin and mucous membranes, rapid pulse, and palpitation, general weakness, vertigo, and the like—are of doubtful value, since they are present in various conditions in which the state of blood is normal. Thus, for instance, they may result from purely psychical causes—fear or anxiety—or occur in the course of chronic digestive disorders, or neurasthenia.

To estimate the degree of dysemia the diminution in the percentage of hemoglobin is of the greatest importance, and this may range within wide limits, even to one-fifth of the normal proportion. Next in importance is the reduction in the number of red blood corpuscles, which however is perceptible only in the more marked cases. In the severe types of the disease reductions to 50 per cent. are quite frequent. There is also a change in size and shape of the red blood-cells, known collectively as poikilocytosis, in the pronounced form of dysemia.

* Reprinted from the *Buffalo Medical Journal*, August, 1903.

Usually the corpuscles are diminished in size and their shape becomes irregular; there may be granular deposits in their protoplasm. Sometimes there may be found in the blood the so-called normoblasts, which are nucleated red cells, resembling those present in the red bone marrow. The latter have been specially observed in dysemia, following profuse losses of blood, but in any case are of no significance.

These remarks apply only to the simple types of dysemia and not to the progressive pernicious forms, characterized by changes in the blood-forming tissues. As pointed out by Ehrlich and Lazarus in an excellent article on the subject, to which I am indebted for much information, the radical difference between the simple and pernicious varieties of dysemia is that in the former the regeneration of the blood takes place in a physiological manner, while in the latter it reverts to the embryonic type, as shown by the presence of foreign elements. The majority of cases of simple dysemia are secondary to diseases attended with malassimilation, tissue waste, hemorrhages, and profuse discharges, while it is important to remember that it is often due to a condition of autotoxemia, or to the absorption of toxins generated by bacteria. It is, therefore, not enough to make a diagnosis of dysemia, but the primary cause should be sought and removed if possible.

The treatment of the changed condition of the blood consists in the adoption of an appropriate regimen,—a nutritious diet, fresh air and sunshine—in connection with the administration of iron supplemented occasionally with arsenic. Hydrotherapy is a very valuable auxiliary in some cases. The patient should rest as much as possible, and in severe cases should take a vacation in the mountains. Long before modern hematology had its beginning, iron was administered on empirical grounds, and all that modern medicine has contributed to the therapy of dysemia is the introduction of ferruginous compounds, which are not only superior in efficacy to those in former use, but free from their objectionable features. The chief disadvantages of the older iron preparations were their disturbing effect upon the digestion, their tendency to produce constipation, and their destructive action upon the teeth. It is a notable achievement of pharmaceutical chemistry to place at the physician's disposal organic ferruginous compounds,

which approximate closely in composition to the form in which iron is contained in the red blood-globules. The most prominent preparation of this kind is Pepto-Mangan (Gude). This consists of iron and manganese in the form of peptonates, which representing albuminous elements in their last stage of digestion, are immediately absorbed and assimilated, without undergoing any previous transformation in the gastrointestinal tract. The presence of manganese in combination with iron in Pepto-Mangan is based upon the fact that both of these elements are found associated in the red globules.

Having had my attention directed to this preparation through the reports of leading authorities in European and American journals, I subjected it to a thorough test in the Hotel Dieu Hospital, Montreal, and have briefly recorded here the histories of a number of typical cases in order to demonstrate its efficiency in dysemia, as shown by the rapid increase of the hemoglobin percentage and number of red blood-cells.

CASE I.—A woman, aged 25 years; dysemia. Time of administration, 30 days. First count, 3,376,400 red corpuscles to the c.mm.; second count, 4,400,300 to the c.mm. Hemoglobin: first examination, 51 per cent.; second examination, 70 per cent.

CASE II.—A girl, aged 20 years; dysemia. Time of administration, 30 days. First count, 2,630,200 red corpuscles to the c.mm.; second count, 3,970,000 to the c.mm. Hemoglobin; first examination, 40 per cent.; second examination, 60 per cent.

CASE III.—A man, aged 25 years; dysemia, following typhoid fever. Time of administration, 30 days. First count, 2,500,200 red corpuscles to the c.mm.; second count, 3,950,000 to the c.mm. Hemoglobin: first examination, 39 per cent.; second examination, 50 per cent.

CASE IV.—A woman, aged 39 years; dysemia. Time of administration, 30 days. First count, 2,750,400 red corpuscles to the c.mm.; second count, 3,500,000 to the c.mm. Hemoglobin: first examination, 35 per cent: second examination, 60 per cent.

CASE V.—A woman, aged 35 years; dysemia, following miscarriage. Time of administration, 30 days, First count, 2,-

800,000 red corpuscles to the c.mm.; second count, 3,300,000 to the c.mm. Hemoglobin: first examination, 33 per cent.; second examination, 45 per cent.

CASE VI.—A young girl, aged 17 years; dysemia, following typhoid fever. Time of administration, three weeks. First count, 2,495,270 red corpuscles to the c.mm.; second count, 3,300,200 to the c.mm. Hemoglobin (percentage of normal amount): first examination, 35 per cent.; second examination, 45 per cent.

CASE VII.—A young boy aged 16 years; dysemia, following typhoid fever. Time of administration, three weeks. First count, 3,670,000 red corpuscles to the c.mm.; second count, 4,600,300 to the c.mm. Hemoglobin (percentage of normal amount): first examination, 40 per cent.; second examination, 65 per cent.

CASE VIII.—A man, aged 30 years; dysemia, following amputation of the leg. Time of administration, three weeks. First count, 2,360,400 red corpuscles to the c.mm.; second count, 3,500,200 to the c.mm. Hemoglobin (percentage of normal amount): first examination, 30 per cent. second examination, 70 per cent.

CASE IX.—Woman, aged 24 years; dysemia, following pneumonia. Time of administration, three weeks. First count, 2,600,250 red corpuscles to the c.mm.; second count, 3,400,000 to the c.mm. Hemoglobin (percentage of normal amount): first examination, 35 per cent.; second examination, 70 per cent.

CASE X.—Woman, aged 20 years; dysemia, following miscarriage. Time of administration, three weeks; First count, 2,502,600 red corpuscles to the c.mm.; second count, 4,006,200 to the c.mm. Hemoglobin (percentage of normal amount): first examination, 40 per cent.; second examination, 65 per cent.

CASE XI.—Man, aged 32 years; dysemia, following typhoid fever. Time of administration, three weeks. First count, 2,300,000 red corpuscles to the c.mm.; second count, 3,640,160 to the c.mm. Hemoglobin (percentage of normal amount): first examination, 33 per cent.; second examination, 62 per cent.

CASE XII.—A girl, aged 16 years; dysemia. Time of administration, four weeks. First count, 2,290,700 red corpuscles to the c.mm. second count, 3,800,200 to the c.mm. Hemoglobin (percentage of normal amount): first examination, 40 per cent.; second examination, 60 per cent.

CASE XIII.—A girl, aged 16 years; dysemia. Time of administration, four weeks. First count, 2,430,300 red corpuscles to the c.mm.; second count, 4,000,300 to the c.mm. Hemoglobin (percentage of normal amount): first examination, 40 per cent; second examination, 65 per cent.

Comparing my results with Pepto-Mangan (Gude) with those obtained from other chalybeates of this class, I have been led to give it decided preference. As already stated, the only reliable means of diagnosing dysemia is by the examination of the blood, and for the same reason the only way of testing the efficiency of a ferruginous preparation is by making blood-counts and estimating the percentage of hemoglobin. On the ground of my findings, as shown by the histories of the cases cited, the results of such tests have been uniformly satisfactory and entitle the preparation to a leading place in ferruginous medication.

Evidence of Physicians as to Testamentary Capacity.—The Supreme Court of Appeals of West Virginia holds, in the case of Ward vs. Brown, that evidence of physicians as to testamentary capacity is entitled to greater weight than that of non-professional persons, provided they have had personal observation and knowledge of the person whose mental capacity is in question; otherwise, it is not. Expert testimony, except under special circumstances, is entitled to only such weight as the jury may deem it entitled to when viewed in connection with all the evidence and circumstances; and it is error to instruct the jury that the evidence of physicians testifying as experts only, on the trial of an issue of whether there was a will or not, is entitled to great weight.—*J. A. M. A.*

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EDITORIAL.

THE STUDY OF ANTHROPOLOGY.

"Man, know thyself," is a saying as old as Plato, in whose system of philosophy every branch of human knowledge was embraced. Remembering this aphorism and continually keeping it in mind proved the incentive for all the work of the ancient philosophers, and it is a matter for us to wonder that they arrived at so many concrete truths by the mere force of reasoning and observation, unaided by experimentation or those other means which have proven of so much value in modern times. By pure force of logic they deduct conclusions which, in many instances, hold good to-day. Their investigations, if such they may be designated, covered every field of human knowledge; and when we take this into consideration, it is little matter for wonder that the founders of schools drew so many disciples to them. Plato founded a large school, and enunciated truths which were eagerly taken up by his disciples, and they, in turn, also became famous. One of the best-known disciples of Plato was Socrates, who achieved a reputation almost as great as that of his master. All these philosophers, as well as others, made the study of man in all his aspects their

particular branch of investigation, and it is to these that we must refer the origin of anthropology as a special study. That they did not sow their seed upon sterile soil is manifested by the prominence which this study has attained at the present day. And, as years glide by, we find that more and more work is being done in this fertile field.

The study of anthropology is certainly closely allied to that of medicine, and the finished practitioner of the healing art must study the former if he desires to be looked upon as a physician of capacity and attainments. It is partly for this reason that the more prominent anthropologists of these later years have been physicians. And this is natural for the reason that they are naturally more competent for this sort of work on account of the studies they must have prosecuted in preparing themselves and becoming fit for their profession. There can exist no doubt that the study of anthropology is not only an interesting one, but positively fascinating for the serious student. This is particularly the case when man of remote ages is taken up, and the remains of his efforts—such as buried cities, ornaments, inscriptions, and all other evidence left by him—are studied. As a matter of fact, archeology is the complementary study of anthropology, and it is of the very greatest help in formulating just conclusions. We could pursue this subject at much greater length, but it is unnecessary to do so here. In the present issue of the JOURNAL is given the first half of a valuable monograph on "Quaternary Man in the Western Hemisphere," written by Dr. Albert S. Ashmead, the celebrated leprologist. This contribution is a very valuable one, and contains much that is interesting and useful, and it sheds much light upon the anthropology of America.

It is a contribution which we are certain is destined to attract much attention, both in this country and in Europe, and we feel certain that it will direct the studies of many to the subjects of anthropology and archeology. We are much pleased to have the opportunity of presenting this to our readers, who, we are certain, will be much pleased to read it. They will be enabled through its reading to learn how much of the interesting in anthropology this continent affords, and we judge that it will prove an incentive to the preparation of further contributions on the subject.

BOOK REVIEWS.

Surgery : Its Theory and Practice. By WM. JOHNSON WALSHAM, F.R.C.S. Eng., M.B. and M.C. Aberd. 8vo, pp. 1,227. Eighth Edition, with 622 Illustrations, including the Skiagram Plates by WALTER GEORGE SPENCER, M.S., M.D. (Lond.), F.R.C.S. Eng. [Philadelphia: P. Blakiston's Son & Co. 1903.

This edition of Walsham's Surgery is certainly a marked improvement over the last, and shows what painstaking care has been taken in the revision. Throughout the pages of the book before us may be seen evidence of the careful revision upon every page, and it has been done to such an extent that the present almost looks like a new one. Those of our readers who have seen former editions of the work are well acquainted with the methods which have been adopted by the author, and he has retained them in this latest issue. It stands to-day as a fair example of the old-fashioned works on surgery, which dealt with the theory and practice of surgical affections which have long since been relegated to the field of specialties, and which have separate and distinct treatises devoted to their consideration. In this volume the author has shown his ability as a general all-around surgeon, and he has well demonstrated to us what an excellent work he could write upon his chosen field of the healing art. In fact, throughout the pages of this work we see a vast clinical experience made evident by one who was a master of his art and who did not hesitate to impart to others the fruits of his long and successful surgical career.

The book before us is divided into six sections. Section I. deals with the General Pathology of Surgical Diseases. In this we find the full force of the author's genius developed. Beginning with the pathology of inflammation, he treats us to a full consideration of the subject, not omitting the rôle of the various bacteria in relation to the pathology of surgical processes. In fact, it is a thorough small treatise in itself, and is an index of the manner in which all the subjects are handled in this work. Section II. is concerned with General Pathology of Injuries, in which are noted, wounds, their varieties, their treatment, hemorrhage, the constitutional effect of injury, such as shock and delirium, this last being particularly well considered. Section III., whilst not a very large one, is very important, inasmuch as here are mentioned and considered the Injuries of Special Tissues. Section IV. is a rather long one, this being necessitated by the many subjects taken up for description. It is devoted to Diseases of Special Tissues, but we notice that but little space is devoted to diseases of the lymphatics and lymphatic glands, diseases of the

nerves and diseases of the skin. This would naturally be expected, in view of the fact that there exist special works devoted to these topics. In Section V. Injuries of Regions forms the topic, and here we see the surgeon develop in all his greatness. Clearness of description and clear-cut directions are everywhere apparent, and we can see that the author feels himself completely at home on this subject. In fact, he delights in its consideration and the manifold advantages it offers to him. In Section VI., on the other hand, we are presented with the Diseases of Regions. This is a most useful chapter, and one which is quite full. So far as the needs of the general surgeon are concerned, it fully covers them. It is really one of the best of the Sections in this excellent work. Later on we find a full exposition of the Surgery of the Abdomen, of Diseases of the Urinary and Genital Organs, and of Diseases of the Extremities, including the Spine. This fittingly concludes this magistral work.

The illustrations are numerous and well made. They are very demonstrative, and the skiagrams are unusually clear, more so than the majority of those which so frequently confront us. The book is printed upon excellent paper, and the print is unusually clear and clean-cut. To sum up in a few words, the book is a handsome specimen of the book-maker's art, and we will not be much surprised to hear of a ninth edition being soon called for by the medical profession. The publishers have really a reason to take pride in this latest product of their press.

Diseases of the Nose and Throat. — By CHARLES HUNTOON KNIGHT, A.M., M.D. 8vo. pp. 423. With 147 Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$3.00 net.

When we take into consideration the great prevalence of diseases of the nose and throat a work like the one before us becomes a real necessity to the medical profession. This is more accentuated in view of the fact that much progress is being daily made in the etiology, pathology, diagnosis and treatment of these diseases. A book that is but two or three years old is not considered up to date; and yet, as in many other specialties, the progress daily made is so great that it requires an individual's undivided attention to it to be able to keep himself posted upon those things which are of real value and utility. It is for these and various other reasons that we note the issue of a new work on the subject by a capable author, and this will readily demonstrate itself to anyone who will take the trouble to read the work. It is not a treatise, but rather a book of reference in which all the essential points have been noted and useless and lengthy discussions on moot

points have been judiciously omitted. It will be noted throughout the book that it has been written chiefly for students, and it is essentially the basis of a course of lectures given by the author at Cornell University, of whose faculty he is a member. He has not been able to indulge in much bibliography, because the literature on the subject whereof he treats is so extensive that it would require another volume as large as the present one. This judicious spirit permeates all the pages of this excellently written text-book, which will be found as valuable by practitioners as by students.

This book is quite thorough in its treatment of the subject. The anatomy of the nose, pharynx and larynx, whilst not dilated upon, is sufficiently worked up to be quite satisfactory. The various diseases and pathologic processes which attack these structures are well described, and the treatment, both medical and operative, is very well described. The injection of paraffin in the nose to correct deformities is described, but the author judiciously refrains from becoming enthusiastic over it as a prothetic measure. We fail to find any allusion to the screw-worm as affecting the nose and naso-pharynx, and yet it is a condition of the greatest seriousness when attacking a human being. As we have had occasion to observe a number of cases, the hideousness of the cases made an impression which has been lasting. Dr. Knight is essentially a laryngologist, and this is manifested by the masterly manner in which he has treated of the diseases of the larynx. He has devoted more attention and painstaking efforts to this part of the subject, although his manner of dealing with the nose and pharynx and their diseases is above criticism. Throughout the work we see evidence of the author being a master of the subject, and he disposes of it in a manner which is interesting and will be read with pleasure both by the student and practitioner alike.

Without desiring to call more attention to particular points, we can say with truth that the book will readily recommend itself to teachers and students, and will be found of great assistance to the former and of advantage to the latter. The large number of well-executed engravings in the text form a great help and add to an easy comprehension of the text. The publishers have made of this a handsome volume, which is well printed and durably bound in such manner as to present a very good appearance.

The Principles and Practice of Surgery. Designed for Students and Practitioners. By GEORGE TULLY VAUGHAN, M.D. (Univ. of Va.). 8vo. pp. 569. Illustrated, (Lippincott's New Medical Series. Edited by Francis R. Packard, M.D.). [Philadelphia and London: J. B. Lippincott Company. 1903. Price, \$3.50.]

This volume is one devoted to general surgery, and, as the author distinctly states, he has not endeavored to trench upon what are to-day recognized as special branches of surgery. Thus operative gynecology, orthopedic surgery, ophthalmology, and the special branches, are not taken into consideration. As the author very justly observes, these branches have been developed to such a degree that each one has large treatises devoted to it, and could certainly not receive justice such as its importance deserves in a book of the size he presents to us, albeit it is rather large. The advances in surgery have been so great that it has necessitated a certain amount of condensation, without, however, sacrificing its clearness and thoroughness. The general scope of the book is sufficiently large for anyone who desires to be grounded in the principles and practice of surgery, and as an introductory to the acquiring of more special knowledge in surgery it is a most reliable preliminary work upon which full dependence may be placed. The whole subject has been made clear and all complications have been avoided. Discussions on moot questions have not found any place here, and throughout it may be noticed that only such matters are given as are certainties upon which dependence may be placed, and thus afford the student a clear road to travel unobstructed by all those uncertainties which are, in reality, nothing but pitfalls and serious hindrances to the proper gaining of an intelligent understanding of those principles so essential to a thorough acquirement of the subject of surgery.

The book is divided into two sections. Section I. is devoted to General Surgery, in which are included such subjects as inflammation, wounds, asepsis and antisepsis, and anesthesia. Plastic surgery is disposed of in rather a summary manner, and it would perhaps have been better to write a little more on the principles of this important subject, in view of the fact that they are not generally so well understood as they ought to be, and that the results are of such a satisfactory nature as to deserve fuller treatment. Minor Surgery receives a goodly share of attention, as it certainly should, bandaging being well considered. The author is not very enthusiastic over the Roentgen ray, and, after a brief description, he very justly states that nothing definite is really known concerning it, and that its therapeutic applications are not yet certain. He describes the burns produced by these rays, and is, on the whole, conscientious in his utterances. In view of the enthusiasm of certain X-ray promoters his remarks are very logical and based upon reason. Gangrene, traumatic fever, septicemia and pyemia, tetanus and hydrophobia, glanders, anthrax, and actinomycosis, tuberculosis and plague, syphilis and chancroid, and tumors and cysts, form the subjects of some more of the chapters of this part.

Section II. deals with the Surgery of Systems and Regions. This is, in our opinion, the most laudable part of the book, and it is the larger. It includes what really constitutes the practice of surgery, and, necessarily, it would come to naught had it not been preceded by the sound teaching of principles. The section under consideration is divided into two chapters, which are devoted to the vascular system, including varicose veins, aneurism, and the lymphatics; the diseases and injuries of the osseous system; the diseases and injuries of the joints, muscles, tendons and tissue; orthopedic surgery is disposed of in eight pages; the nervous system, including the head and spine; the respiratory organs; the digestive tract, which occupies quite some considerable space and attention; the genito-urinary organs, whose surgery has justice done to it as much as could be expected in a work like the present one; and tumors of the breast, which occupies comparatively little space. The method of practice advocated is sound.

The entire work is one worthy of commendation, and about the only criticism that could be made is that it is far above the average in excellence and thoroughly up to date. The publishers have made a handsome book of this, and have issued it at a price which is so reasonable that no one can complain of it. The paper, illustrations and binding are superior.

A Dictionary of Medical Sciences. Containing a Full Explanation of the Various Subjects and Terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Pathology, Bacteriology, Surgery, Ophthalmology, Otology, Laryngology, Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence, Dentistry, Veterinary Science, etc. By ROBLEY DUNGLISON, M.D., LL.D., Twenty-third Edition, thoroughly Revised, with the Pronunciation, Accentuation and Derivation of the Terms. By THOMAS L. STEDMAN, A.M., M.D. Imperial 8vo. pp. 1212. With about 600 Illustrations, including 85 Full-page Plates, mostly in Colors, with Thumb-Letter Index. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, cloth, \$8.00 net; leather, \$9.00 net, half-morocco, \$9.50 net.

Full well do we remember, in common with others, that the word *Dunglison* in our student days was synonymous with medical dictionary, and how many gray and grizzled veterans of the medical field still place all their confidence in their old friend, the renowned medical lexicographer. We are not surprised that this dictionary should have gone through twenty-two editions in three-quarters of a century, nor that its sales, based upon its merits, should have called for this, its twenty-

third edition. The preceding edition was exhausted in three years, and the publishers inform us that the number of words new in this edition shows that each day adds two terms to the science of medical knowledge. It is for the reason of this great accretion of new terms that it was resolved to economize space by eliminating everything obsolete or of only indirect bearing on medicine, which was a very judicious move. The adoption of this method has resulted in the production of a dictionary which is in line with the latest advances and discoveries.

A very prominent feature of this edition, as it has been in the past, is the encyclopedic nature of the definitions which are given. Mere synonyms are not alone furnished, but condensed descriptions are afforded, which, when necessary, are illustrated. This last feature has necessitated the introduction of a large number of new engravings, which are in themselves of great value in making shorter the various definitions which are given. In fact, through the ability of the revision done by Dr. Thomas L. Stedman the dictionary has gained an added value of a marked character. The manner in which this work has been carried on has made the book one of universal service for all men, undergraduates and graduates, interested in any of the medical sciences, and will also aid, in no small degree, writers who desire to secure greater accuracy in their literary work. Of course, it is unnecessary to point out the value of a technical dictionary and the various uses to which it may be put; but what we do wish to say is that the one before us is a model of its class and is complete, thorough and clear. The work which was so auspiciously begun has been continued and improved as well as revised in every edition through which it went. It has continually improved, and stands to-day pre-eminent among medical dictionaries.

The publishers have done their full duty in their efforts to make this a handsome and fine-appearing volume. It is neatly printed, excellently bound, and the plates are all good and much above the average. We are rather surprised that the proof-reader should have permitted *laryngology* to be printed instead of *laryngology* on the title-page. It is a pity that such an error should be permitted to mar such a splendid volume, and we have no doubt that the editors have noticed this and already corrected it. Otherwise the work is unexceptional, and this very trivial error may possibly pass unnoticed by the many who will use it.

Functional Diagnosis of Kidney Disease with especial Reference to Renal Surgery. Clinical Experimental Investigations by DR. LEOPOLD CASPER and DR. PAUL FRIEDERICH RICHTER. Translated by DR. ROBERT C. BRYAN and DR.

HENRY L. SANFORD. 12mo. pp. 233. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.50 net.

This little monograph is one which deals with the more serious phases of renal pathology and the authors have gone very deeply into the subject. They devote much of their attention to the propriety of performing certain operations on the kidneys, and the analytic manner in which they consider the subject is one worthy of close attention more especially in view of the fact that there are brought forward so many distinct facts in support of the assertions made and adduced. In all of its treatment of the subject the authors are rather inclined to be conservative and very justly so. They place great reliance upon methods of examination and are very particular to see to it that each ureter is catheterized and the urine so obtained separately examined, and it is only by this method that the true condition of the kidney can be positively determined.

The translators of this work have been occupied in this field for some time so that the translation is both valuable and critical and is the means of placing a valuable book before the English reading public.

THE MEDICAL EPITOME SERIES:

Physics and Inorganic Chemistry. A Manual for Students and Practitioners. By ALEXIUS MCGLANNAN, M. D. 12mo. pp. 216. Series Edited by V. D. PEDERSEN, A. M., M. D. Illustrated with Twenty Engravings. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$1.00.

This little book is uniform with others of this series and shares in their general excellence. The author has made a good epitome of the subjects of physics and inorganic chemistry, two subjects which are but too sadly neglected by the average medical student. In speaking of electrolysis the author barely mentions the *ion* theory which now plays such a large part in volumetric analysis and which is rapidly establishing itself upon a firm basis. Radium is merely mentioned and this very rightfully as it is nothing but a curiosity up to the present time. The book is a very useful one and students will find it of special value in their private quizzes at home or account of the convenience of the questions appended to each chapter. This little epitome deserves success as it is an excellent manual and aid to the larger text-books. We can heartily recommend it to all in need of such an epitome.

L'Ordonnance des Tuberculeux. Par le DR. SAVIGNAC. 12mo. pp. 20. [Paris C. Naud, 3 rue Racine. 1903. Prix, 50 centimes.

THE PRESCRIPTION OF THE TUBERCULOUS. By DR. SAVIGNAC.

This is a little primer which will do tuberculous patients much good as it points out to them what regimen to follow, exercise to take, and gives them good advice throughout. The author is in favor of the open-air treatment and everywhere shows himself an adherent of the latest, up-to-date methods. This little book is an excellent one to recommend to patients who can read French. An English edition may soon appear and help on the grand work so auspiciously inaugurated. Considering that the price of this pamphlet is but ten cents it should have numerous purchasers.

Nurses' Guide to Surgical Bandaging and Dressings. BY WM. JOHNSON SMITH, F. R. C. S. 32mo pp. 167. [Philadelphia: J. B. Lippincott Co. 1903. Price 75 cents.

This is a little guide written for medical students and nurses and it is reliable in all respects. Its small size permits of its being carried in the vest pocket or in one of the small pockets found outside of nurses' bib-aprons. The book gives the elements of antiseptic and aseptic methods and then goes on to treat of bandaging, applying splints, and of the methods of properly applying surgical dressings. The author has done all this in a condensed style, easily understood by an ordinarily intelligent person. In order to make matters plainer he has introduced 70 illustrations each one of which is clear and demonstrative. This little book will doubtless meet with a ready sale as its merits are such as to recommend it to all in need of such a guide. The publishers present it in a handsome and attractive form.

A Handbook of Obstetric Nursing for Nurses, Students and Mothers. Comprising the Course of Instruction in Obstetric Nursing, given to pupils of the Training School for Nurses connected with the Woman's Hospital of Philadelphia. By ANNA M. FULLERTON, M. D. Sixth Revised Edition. 12mo. pp. 270. Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.00 net.

This is an eminently practical handbook for nurses which contains much information and many directions for the management of lying-in women and for the children after birth. It is far from discursive and the author very judiciously refers all things of a serious nature to the physicians. This would be naturally expected in view of the fact that she herself is a physician. We agree with the teachings of this little book in the main but would call the attention of the writer of this booklet to two points. When a child is born with blisters in the palms and in the soles

it is well to suspect that it is syphilis and not pemphigus. Snuffles is another indication of specific disease and is not simple coryza in every case. We have seen many such cases which promised to be the foci of infection and which a timely recognition prevented from becoming infectious. The book, in general, is very useful, and will prove, as it has in the past, to be a very useful *vade mecum* for nurses.

Scheme for the Differential Testing of Nerves and Muscles.

For Use in Diagnosis. By J. MONTGOMERY MOSHER, A. M., M. D., 8vo. pp. 58. Illustrated. [Albany, N. Y.: Brandon Printing Co. 1903. Price, \$1.00.

This little book is the only one of its kind which has appeared in English and it is intended to fill a want for more exact, definite, and scientific methods of testing accurately the differential electric susceptibility of nerves and muscles. All the various tests are based upon actual observations made in hospital practice and this renders them all the more valuable. The six plates illustrative of the motor points for the muscles have been adapted from Bourguery's classic plates, but the points have been determined by the author by actual application of the various electric currents. The great value of this little book lies in the fact that it may lead to the adoption of the methods of which he speaks in teaching more exactly the subjects of the motor and sensory functions of the muscles and nerves. The book is excellent and deserves further elaboration.

Transactions of the Medical Society of the State of New York
for the year 1903. 8vo. pp. 514. [Published by the Society. 1903.

As we would naturally expect the Transactions of the Society of the State of New York form a large, well printed volume replete with contributions and papers of a high order of merit. A short examination of the contents will reveal the value of the papers read and also act as a sort of an incentive for others to do similar work. The Anniversary Address by the President, Dr. Henry Reed Hopkins, is a well considered effort. Rudolph Virchow; an Appreciation by Dr. Charles A. L. Reed, of Cincinnati, is a masterly effort and should be read by every one. A Symposium of six papers on Arterio-Sclerosis is most valuable and will be ever remembered by those who heard it. Beginning with the Early Diagnosis and Symptoms of Arterio-Sclerosis, we are treated to successive papers on Arterio-Sclerosis and the Heart, and the Kidney, and the Digestive System, and the Nervous System, and Mental Disease, and Pulsus-Infrequens.

Following this we are presented with an equally interesting symposium on Hematology, consisting of four papers distributed as follows: Blood Examination in General Practice, the Eosinophiles, their Etiology and their Clinical Significance, Degeneration of the Erythrocyte, and the Iodine Reaction in the Blood and its Diagnostic Value. The various papers in the symposia are written by well-known medical contributors and expert observers thus giving each an added value.

Among the separate papers are to be mentioned that on Erythropleum; a Clinical Study by Dr. Reynold W. Wilcox; Retinoscopy by Dr. D. H. Wiesner; an Operation for Cicatricial Contractures of the Upper Extremity by Dr. A. H. Traver; and Acute Osteomyelitis by Dr. Arthur W. Booth. The Technique of Prostatectomy by Dr. Ramon Guiteras will be of particular interest to genito-urinary surgeons. The Surgeon's Enemy, the Skin by Dr. Robert H. M. Dawbarn is a well considered as well as a valuable contribution. Rib Resection in Old Pyothorax by Dr. Frank Van Fleet is a well written record of a more than ordinarily interesting case. There are so many good papers in this volume of Transactions that we cannot do more than mention a few. The Secretary of the Society, Dr. Frederick C. Curtis, has acquitted himself most excellently in presenting this volume in its present form. He has always done this and, as a natural consequence, he has been re-elected Secretary, a position which he will have filled fifteen years when the next annual meeting occurs. He has certainly acquitted himself well of his work and we hope to see him in the same position fifteen years longer.

Nose and Throat Work for the General Practitioner. By GEORGE L. RICHARDS, M. D. 12mo. pp. 330. Illustrated. [New York: International Journal of Surgery Co. 1903. Price, \$2.00.

This is a little, practical book which will beyond doubt prove a great help to general practitioners. The author has very judiciously omitted all discussions concerning pathology and has been equally good in his judgment by omitting any reference to rare cases. He thus limits himself to such diseases as occur in the every-day practice of a general practitioner of medicine. He has been equally judicious in his methods of treatment which are simple and efficacious. He has made it a point to avoid loading the practitioner with an expensive and cumbersome armamentarium which he doubtless will never find occasion to employ or to utilize. These are some of the salient points of the book which recommend it to the favorable consideration of the reader for whom it is intended. As the author distinctly states in his title the work is intended for

the general practitioner and not for specialists and the former will soon learn how adept he may become by its study and use.

Whilst the author has made his work concise it has not been at the sacrifice of clearness. In fact, this latter quality predominates throughout the work and is enhanced by the large number of clear and well executed figures which are given. Throughout we can see the effort of the author to make his text clear one of the predominant features. For such a small book it is unusually full and it is destined to make a mark in the literature of the nose and throat. We are pleased to note the attention devoted to rhinology which, as we can remember, was not accorded to it some years ago. Now it is treated in its true importance which it certainly deserves and we hope to see it develop to its true magnitude. It is works such as the one before us which will bring about such a desired change and will call the attention of practitioners to the importance of the nose and its diseases.

LITERARY NOTES.

Books Received.—The following books were received during the past month, and are reviewed in the present number of the JOURNAL:

Nurse's Guide to Surgical Bandaging and Dressing. By Wm. Johnson Smith, F. R. C. S. 32 mo. pp. 167. [Philadelphia: J. B. Lippincott Co. 1903. Price, 75 cents.

Transactions of the Medical Society of the State of New York for the Year 1903. 8vo. pp. 514. [Published by the Society. 1903.

L'Ordonnance des Tuberculeux. Par le Dr. Savignac. 12mo. pp. 20. [Paris: C. Naud, 3 rue Racine. 1903. Price 50 centimes.

Nose and Throat Work for the General Practitioner. By Geo. L. Richards, M. D. 12mo. pp. 330. Illustrated. [New York: International Journal of Surgery Co. 1903. Price \$2.00.

Diseases of the Nose and Throat. By Charles Huntoon Knight, A. M., M. D. 8vo. pp. 423. With 147 Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$3.00 net.

Scheme for the Differential Testing of Nerves and Muscles. For Use in Diagnosis. By J. Montgomery Mosher, A. M., M. D., 8vo. pp. 58. Illustrated. [Albany, N. Y.: Bradow Printing Co. 1903. Price, \$1.00.

The Principles and Practice of Surgery. Designed for Students and Practitioners. By George Tully Vaughan, M. D., (Univ. of Va.) 8vo. pp. 569. Illustrated. (Lippincott's New Medical Series. Edited by Francis R. Packard, M. D.) [Philadelphia and London: J. B. Lippincott Company. 1903. Price, \$3.50.

Surgery: Its Theory and Practice. By William Johnson Walsham, F. R. C. S., Eng., M. B. and C. M. Aber. 8vo. pp. 1227. Eighth Edition. With 600 Illustrations, including 20 Skiagram Plates by Walter George Spencer, M. S. M. B. (Lond.), F. R. C. S. Eng. [Philadelphia: P. Blakiston's Son & Co. 1903.

The Medical Epitome Series: Physics and Inorganic Chemistry. A Manual for Students and Practitioners. By Alexius McGlannan, M. D. 12mo. pp. 216. Series Edited by V. C. Pederson, A. M., M. D. Illustrated with Twenty engravings. [Philadelphia and New York: Lea Brothers & Co. 1903. Price \$1.00.

Functional Diagnosis of Kidney Disease with especial Reference to Renal Surgery. Clinical Experimental Investigations by Dr. Leopold Casper and Dr. Paul Frederick Richter. Translated by Dr. Robert C. Bryan and Dr. Henry L. Sanford. 12mo. pp. 233. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.50 net.

A Handbook of Obstetric Nursing for Nurses, Students and Mothers. Comprising the Course of Instruction in Obstetric Nursing given to the Pupils of the Training School for Nurses connected with the Woman's Hospital of Philadelphia. By Anna M. Fullerton, M. D. Sixth Revised Edition. 12mo. pp. 270. Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.00 net.

A Dictionary of Medical Science: containing a full Explanation of the various Subjects and Terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Pathology, Bacteriology, Surgery, Ophthalmology, Otology, Laryngology, Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence, Dentistry, Veterinary Science, Etc. By Robley Dunglison, M. D., LL. D. Twenty-third Edition, thoroughly Revised, with the Pronunciation, Accentuation, and Derivation of the Terms. By

Thomas L. Stedman, A. M., M. D. Imperial 8vo. pp. 1212. With about 600 illustrations, including 85 full-page plates, mostly in colors, with thumb-letter index. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, cloth, \$8.00 net; leather, \$9.00 net; half morocco, \$9.50 net.

A Diagnostic Chart of Tumors and Pseudo Tumors has been published by the well-known manufacturing chemists of St. Louis, Messrs. Battle & Co., on the reverse side of a pamphlet descriptive of their products. This chart has been constructed by Edward C. Hill, M. D., of Denver, Colo., and it is a most useful one for ready reference by the physician. Those of our readers who have not received a copy can do so by addressing a request to the firm mentioned above.

The Alienist and Neurologist for November, 1903, will contain the following original articles: Responsibility and Crime, by J. W. Wherry, M. D.; Mixoscopic Adolescent Survivals, by J. G. Kiernan, M. D.; Automatic Retrospective Slumber, by C. H. Hughes, M. D.; Glossary of the Aphasias, Asymbolias and Alexias, with Comments, by C. H. Hughes, M. D.; Outlines of psychiatry, by C. Wernicke, M. D.; Outdoor Sports for the Insane, by J. T. W. Rowe, M. D.

The Doctor's Recreation Series is the general title of a series of octavo volumes soon to be issued. In this are to be found works of fiction which will doubtless prove of the highest interest to the medical profession and will be the means of passing pleasantly many an idle hour. We do not wish to burden our readers with a full list of titles of the twelve volumes which we are promised but we may mention: "The Doctor's Leisure Hours," which is Vol. I.; Vol. II is "The Doctor's Red Lamp,"; and Vol. III, "In the Year 1800," this latter being a novel. We are certain that our readers will all buy the entire series as it is well worthy of being placed upon their bookshelves. The books themselves will be 8vo. in size and well printed on extra paper. The proposed price is \$2.50 per volume for the cloth binding and \$4.00 for the half morocco. The books will be illustrated with half-tones and photo-gravures and the entire set promises to be one very much above the average in the quality of its contents and general appearance. The publishers are The Saalfeld Publishing Co., Akron, Ohio, and they will give further particulars upon request.

MELANGE.

The Diagnosis of Inherited Syphilis.—The diagnosis of inherited syphills, though in general presenting no great difficulty, on closer examination and inquiry is in some cases a matter of exceeding difficulty; indeed, a certain diagnosis may not be possible, and the practitioner is obliged to await events. Much assistance may sometimes be obtained, as is pointed out in a recent number of the *Polyclinic*, by extending the sphere of observation so as to bring in other members of the family. It is usually the case that the older members of the family suffer most, but this gradual weakening of the virus is not constant, for it occasionally happens that while one or more of the elder children show slight traces of syphilis, those bore subsequently suffer severely. The manifestations of inherited syphilis are sometimes limited to a single sign—scars at the angle of the mouth, choroiditis, a passive effusion of fluid into a knee-joint, and so on; and a diagnosis based on an isolated sign may be misleading. The fact remains that in a one-symptom or otherwise doubtful case close inspection of the other members of the family may give the missing clue.—*Med. Press and Circular*.

The Shape of the Consumptive Chest.—That the popular ideas with regard to medical matters, some of which are even shared by medical men themselves, are not always in strict accordance with scientific facts, is being gradually shown by careful observers. One of the latest beliefs to receive a rude shaking is that the consumptive chest is flat. Professor Woods Hutchinson has demonstrated that such does not appear to be the case, but rather that the antero-posterior diameter is actually greater relatively to the transverse one than is the normal chest. In other words, the consumptive chest is a persistent immature chest, or one that is normal about the age of from fifteen to eighteen years. The flat-chested individual is at the same time round-shouldered, this being a matter of cause and effect. What is known as the "index" of the chest is simply the ratio between the two diameters, expressed in percentages, taking the transverse diameter as 100. Professor Hutchinson has found that the normal ratio is about 70, whereas in a series of

measurements in over 350 cases of tuberculosis the average index was 79.7. The whole question is one of great importance, especially from the point of view of prophylaxis, for if the chest-index is found to be higher than normal, active measures can then be taken to counteract this by the encouragement of suitable sports and exercises which tend to keep the shoulders well out and so to flatten the chest.—*Med. Press and Circular*.

The Cocaine Habit.—Considerable alarm has repeatedly been expressed by our American contemporaries at the extraordinary and ever-increasing prevalence of the cocaine habit in the United States. There is reason to fear, moreover, that the habit is also gaining ground in Europe, incidents of accidental poisoning by the drug being by no means uncommon as the result of self-administration. It is a highly insidious habit in that its effects do not dull the intellect as do morphia and other narcotics. Another reason for its prevalence is doubtless the extreme facility with which the drug can be procured. We should be better able to form an opinion as to the actual condition of things in this country if medical men would make a point of reporting all cases of the kind that come under their notice. A certain fraction of every community seem to live in need of stimulants of some kind, and now that indulgence in alcohol has come to be regarded askance, the members of this group fly to other sources of stimulation. It may be that the popularity of so-called medicated wines containing coca or cocaine is responsible for the spread of the habit, the victims of the habit thus acquired having now learned to take the drug in the form of the alkaloid without troubling about the excipient. It may be stated that neither coca nor its alkaloid, cocaine, has any legitimate application in internal therapeutics, and a grave responsibility is incurred by those who recklessly and unnecessarily counsel their use—*Medical Press and Circular*.

Death Under Nitrous Oxide.—Death so seldom occurs under the influence of nitrous oxide gas that Dr. Maughan deserves the thanks of his professional brethren for bringing his case of death under the influence of the anæsthetic before the Society of Anæsthetists. A young nervous woman was given nitrous oxide gas to facilitate the removal of a tonsil, she being in an

easy chair, partly undressed, with a prop between her teeth. Anæsthesia was quickly induced to the stage of loss of light reflex, two breaths of air having been given with the gas. At this point the face-piece was removed, but at the same moment the patient was observed to have stopped breathing. Howard's method of artificial respiration was resorted to, and the operation of laryngo-tracheotomy performed without success. As we read the case we believe the girl died from fright, which paralysed her vaso-motor nervous system, and she bled to death into her veins. In this respect fright and shock are identical in their effects, and that fatal results may follow is common knowledge. In a well-known case a very nervous patient believed the anæsthetic was being administered when he was breathing pure air. After a few gasps he stopped breathing, and in spite of every effort could not be resuscitated. Surgeons must recognize that the patient who dreads an operation is even a worse subject for anæsthesia than the drunkard. Death under anæsthesia brings the most useful class of drugs into popular disfavor, and every death makes the next patient more nervous. For these reasons, if for none other, the utmost care should be taken to safeguard the patient from fright, and unless the operation is urgently necessary, to postpone it until the patient has acquired confidence in his powers of living through the ordeal.—*Med. Press and Circular*.

Walking as a Recreation.—To him who studies his brother-man few things are more inexplicable than the mysterious laws which govern what his pleasures shall be and how and where he shall indulge in them. This unwritten code of regulations is sometimes known by the name of fashion, but what applies most admirably to the cut of a coat or the curve of a hat-rim does not universally hold good for those sports and pastimes with which the wearer of these articles occupies himself for his own amusement. Fashion prohibits the free play of individuality, and yet individuality provides fashion with the cue. The strange reversion to the ancestral recreation of walking which has manifested itself lately is actuated by something more than fashion. The practice of cycling for amusement and health is no longer carried on by such vast numbers as was the case two or three years ago. Men must do something to exercise them-

selves, therefore they walk. It is simply a natural reaction, and from the medical point of view, there is much to be said in its favor. In the first place, it is Nature's mode of exercise, and consequently it is adapted to the needs of the body without calling upon it to assume artificial and sometimes harmful attitudes. Secondly, it is more productive of proper expansion of the lungs than probably any other form of out-door sport. It is therefore a great preventative of consumption. And finally, it is a recreation within the reach of all, requiring no outlay beyond a stout pair of boots and a determination to take things cheerfully.—*Med. Press and Circular*.

The "Sleeping Sickness" of Uganda.—Every loyal Britisher must feel an interest in the evolution of Uganda, and should recognize the responsibility we have accepted in regard to the natives of that still undeveloped but rich land. It is manifest in every thoughtful mind, that in the upbuilding of this new country the native races must play an important if not the chief part. But the country is being laid waste, progress is arrested, the unfolding of enterprise is stayed, for a mysterious malady is devastating the land. Dr. C. Christy, one of the members of the Commission recently sent out by the Foreign Office and the Royal Society, who has just returned from Africa, tells us the disease is raging in South Kavirondo and spreading along the shores of the Victoria Nyanza. Although its chief clinical characters are now clearly defined, its pathology yet remains obscure. It seems clear that it is not to be considered as a form of filariasis, but whether Castellani's bacillus prove the true etiological agent or not, it is imperative that no effort be spared to elucidate the casual factors of the disease and demonstrate the manner of its dissemination. It is a point of some interest to note that sleeping sickness in Uganda shows but little tendency to extend beyond the neighborhood of Victoria Nyanza, and its infectivity is apparently not great, and according to reliable observers it is not readily conveyed from one person to another. But regarding its true pathology we yet remain almost entirely in the dark. Meanwhile certain villages are being almost wiped out by this scourge. We trust the home authorities will spare no effort in finding means and securing men for the solution of this very serious problem which most

seriously imperils our position in one of the most favoured regions of Africa.—*Medical Press and Circular*.

Winds and Phthisis.—There is a curious conflict of opinion, all more or less based on statistics, in respect of the influence of high winds in the causation of pulmonary tuberculosis. Figures are adduced which tend to show that great and persistent movements of air determine a comparatively high rate of mortality from phthisis, an influence which is variously explained according to the point of view from which the subject is regarded. While it would be difficult to deny the prevalence of bronchial catarrh among the inhabitants of districts exposed to cold damp winds during long periods, and although it may be conceded that chronic bronchial catarrh is likely to create a predisposition in favor of tuberculous infection, it is as necessary to bear in mind that many other explanations have been suggested of the influence of high winds in this connection. Moreover, the morbidity does not appear to be determined by the direction of the winds, all great movements of air having approximately the same deleterious effects. There is one explanation in particular which commends itself—viz., the fact that the inhabitants of a windy district are tempted to keep their doors and windows closed, thus creating a state of things strictly comparable to that met with in cities as the result of overcrowding. From this point of view, it is not so much the excess of fresh air as the deprivation of it which determines the lethal proclivity. It is a matter of common observation that the laboring classes in the country live under extremely unhygienic conditions. The windows, already of very restricted dimensions, are opened but rarely—witness the stuffiness of most country cottages; personal cleanliness is ignored, no doubt largely in consequence of the lack of necessary facilities; they are underfed, and are, in addition, exposed to a greater extent than town dwellers to atmospheric vicissitudes. In the winter the cost of heating leads to pernicious economies, every heat unit being carefully economized, thus entailing a dearth of the fresh air, which alone can confer immunity against draughts. What is needed in the country is the education of the people in the gospel of cleanliness and fresh air; they require to be brought to regard fresh air as a friend, and not as an enemy to be guarded against.—*Med. Press and Circular*.

The Prize Essay of the American Medical Association.—The American Medical Association offers annually a gold medal, value of \$100, for the best essay on any subject relating to medicine or surgery. The recipient of this prize will be given the option of the gold medal, or a bronze replica of the medal and the balance of the appropriation (about \$90) in money, or the entire amount \$100, in money.

Inasmuch as the Association annually sets apart the sum of \$500 for original research, this prize is offered to stimulate the production of a superior practical paper, based either upon experimental studies or clinical investigation, or both. The committee will give preference to papers having the greatest brevity consistent with thorough consideration of the subject, and recommends that the paper shall not exceed 5,000 words. The committee, while not restricting the choice of subjects, recommends as an important subject for consideration, "The Therapeutic Value of the Digestive Ferments."

Competing essays must be typewritten, and bear no mark revealing their authorship, but instead of the name of the author there must appear on each essay a motto, and accompanying each essay a sealed envelope containing the name of the author and bearing on its outer surface the motto of identification. No envelope will be opened by the committee until a decision has been reached as to the most deserving essay. The other essays will be returned to their respective authors. The committee reserves the right to reject all essays if none are found worthy of the Association medal. Competing essays must be in the hands of the chairman of the committee not later than April 1, 1904.

LEWIS S. MCMURTRY, Louisville, Ky., Chairman.

BURNSIDE FOSTER, St. Paul, Minn.

M. H. FUSSELL, Philadelphia, Pa.

Committee.

MISCELLANEOUS NOTES.

Sanmetto Endorsed as the Most Valuable Remedy in Kidney, Bladder and Urethral Affections.—Sanmetto is a valuable preparation. Indeed, I have found it one of the most valuable remedies in the treatment of gonorrhea and all kidney and bladder affections, either acute or chronic, and can endorse same to the medical profession.

CHAS. E. BARM, M.D.

Indianapolis, Ind.

Dioivburnia and Neurosine alone and in Combination.—I have prescribed Dioivburnia and Neurosine alone and in combination, with the very best results, and will continue their use in my practice in the class of cases for which they are indicated.

26 West St., Newburgh, N. Y.

LOUIS A. HARRIS, M.D.

Tonsillitis.—

℞ Sod. benzoat ʒj.
Ex. cascara sagrad. fl. ʒj.
Tongaline q. s. ad. ʒvj.

M. Sig. A teaspoonful every two to four hours.

A Doctor's Wife Experiences Relief from Neurilla.—I prescribed Neurilla for a very eminent lady, a doctor's wife. She had been suffering from hysterical epilepsy after each menstrual period for many years. Since I began this treatment (Neurilla) she has not had the slightest symptoms of hysteria or epilepsy. Almost a year has elapsed since I first placed her upon Neurilla, and she has now discontinued its use. I am not in the habit of giving testimonials, but the good effect of Neurilla prompts me to write as above. My patient is in the very best of health now in every particular, though she had been an invalid for twelve years.

R. C. DOWNEY, M.D.

110 North St., Caldwell, O.

Iritis.—

In conjunction with local treatment:

℞ Kali iodid ʒiij.
Tongaline ʒviij.

M. et ft. sol.

Sig. A teaspoonful four times daily.

The Abstraction of Blood from the deep blood-vessels into the superficial capillaries through physiologic innervation is physiological phlebotomy. Bleed, but save the blood, is the mechanics of Antiphlogistine.

Dermapurine in Eczema.—

ST. LOUIS, Oct. 6, 1899.

DERMA REMEDY CO.:

Gentlemen—The combined use of Dermapurine and Dermapurine Soap in several cases of eczema treated by me in the past summer brought gratifying results. I have been troubled for some time with a severe itching of the scalp, which annoyed me mostly at night; after using Dermapurine Soap twice a week as a shampoo, and an application of Dermapurine twice daily for the past three weeks, I feel completely cured.

Respectfully,

W. W. CHERRY, M.D.

“As a Non-conductor of Heat, Antiphlogistine maintains the degree of temperature at which it is applied, or nearly so, for twelve to twenty-four hours, requires no attention whatsoever, and is in every way pleasant and agreeable.”

Thialion in Gout.—"In the treatment of these diseases by means of drugs, and I have given all the accepted remedies a thorough trial, and I regret to say I have been unsuccessful except with Thialion, and Thialion I feel I cannot praise too highly, for in the way of medicine it has done more for my gouty patients—and when I say gout I mean all cases of uric acid poisoning—than everything else put together."—Extract from a paper published in the *New England Medical Monthly*, October, 1899, by Henry S. Pole, M.D., Hot Springs, Va., Member of the Virginia State Medical Society, etc.

Positive Results from Gude's Pepto-Mangan.—The *Medical Examiner and Practitioner*, issue of May, 1903, says: As far as positive results are concerned it is safe to assert that no preparation of iron ever introduced to the medical profession has met the requirements to the extent that the pharmaceutical product, Gude's Pepto-Mangan, has done. Unlike many articles claiming to be "Just the same," or "Just as good," it has stood the test of years in the hands of the practitioner, and has been submitted to the severest clinical investigations by eminent men in the profession, both in hospital and private practice.

The Pennsylvania State Board of Health and "Vin Mariani."—On April 22d last the Governor of Pennsylvania approved an excellent law passed by the Legislature, entitled: "An Act regulating the sale or prescription of cocaine, or of any patent or proprietary remedy containing cocaine, and prescribing penalties for the violation thereof." A question arose as to whether the well-known "Vin Mariani," as a coca preparation, contained cocaine. The State Board of Health, on being appealed to, submitted the question to the analytical chemists, Prof. Sadtler and Dr. Genth, the samples examined by them being purchased in drug stores of their own selection. The analysis showed that "Vin Mariani" contained no cocaine.—*Monthly Cyclopaedia of Practical Medicine*, Phila., September, 1903.

The Treatment of Symptoms.—In a highly interesting article on this subject, Walter M. Fleming, A.M., M.D., of New York City, uses the following language:

"Long experience in the treatment of diseases in their incipency evidences, beyond all debate, that almost invariably the attack in a large proportion of cases is inaugurated by febrile symptoms of greater or lesser severity. Also it may be noted that constipation or torpid inactivity of the bowels prevails. Therefore the first indication in the incubation or incipency of the attack, of almost any form or nature, is, primarily, to allay the fever, pain-nervousness and solicitude of the patient, and, secondarily, to empty the alimentary canal. These two ends being accomplished, a long advance towards a possible abortive issue of the attack has been made, or, in any event, the first indication and requirements are fulfilled in proper progress toward a cure.

"Thus in the primary treatment of the numerous ills which are characterized by the above quoted symptoms the physician will find Laxative Antikamnia and Quinine Tablets at once handy, convenient and reliable, safe and sure, and to which the turbulent symptoms of fever, constipation, pain-sleeplessness, nausea and generally wretched depression will yields so promptly and gracefully that it is certainly refreshing to the physician himself to note the change in his patient from suffering and solicitude to comfort and quiet. I certainly know of no other remedy which will so readily and decisively allay and control the symptoms above enumerated."

ST. LOUIS
Medical and Surgical Journal.

Whole No. 756.

VOLUME LXXXV.—DECEMBER, 1903.—No. 6.

ORIGINAL COMMUNICATIONS.

**ORIGIN OF QUATERNARY MAN IN THE WESTERN
HEMISPHERE.**

BY ALBERT S. ASHMEAD, M.D., NEW YORK.

[CONCLUDED]

This, then, is the problem of man's antiquity in America; we do not know how long man was here. The Red Man was found here, but we have not yet accounted for him. Let alone the question of the Indian's predecessor, if he had one, we do not know where the Indian came from. We cannot say whether his development of language, of architecture, and varying customs, whether his dissemination of maize, his apparent domestication of the dog and the llama, whether all this is an affair, geologically speaking, of modern times, or of a longer epoch; of the time represented by the forest loam under our feet that grows Western wheat without manure, of the present existing plants and animals, and of the outlines of the country as we now know them, or of a time devoted by a race of animals that existed and measured, according to Spencer's late work, at Niagara Falls, by a lapse of 32,000 years. This is the question at the bottom of American archæology. This is the question that we went to Yucatan to settle, and to settle by means of hunting in caves. Numerous as were the ruins, interesting as were the Indians themselves, the descendants of the builders of the ruins, we turned away from them to dig under ground, for there we ventured to believe that the truth might be demonstrated for the first time. Somewhere very deep in the cave earth, under the crusts of refuse left by the builders

of Uxmal and Labua, we must find the trace of fossil man if he had existed in the region. Well might the sites of the known mines, excavated to their full depth, fail to reveal his presence; but here, if his footsteps had ever trod the peninsula, he could not escape us.

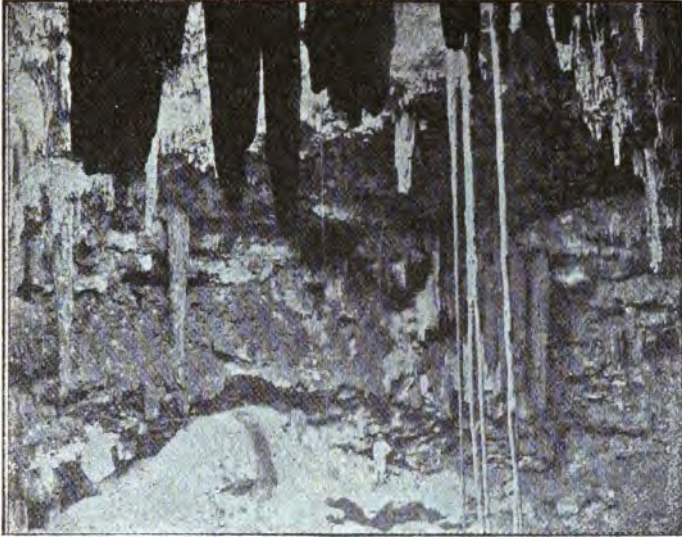
I publish here, by permission of Prof. Mercer, photographs of some of the caves which he examined:



CAVE OF LOLTUN. (*Rock of Flowers.*)

Probably the most beautiful cavern in Yucatan. Situated in a forest solitude near the hacienda of Tabi. Its several spacious rotundas connected by dark passages are lit from above by skylights fringed with forest. Below colored stalactites a graceful underground vegetation charms the eye, and there-water, ever precious in the parched land, drips from shadowy ceilings into ancient dishes of stone. In the charcoal-blackened floors the sought-for proof of human presence was found, which, it is believed, has thrown for the first time the light of reasonable surety upon the antiquity and culture of the ancient people of Yucatan; setting limits to future speculation, and preparing the way for a just interpretation of the grotesque ruins, the strange mural decorations, and the hieroglyphs, still unread, that Stephens and Waldeck described to astonished hearers half a century ago. The view is taken in the second or largest rotunda. The Indians are sitting on the edge of Trench No. 1, beyond which the dark passage on the right leads to the entrance.

NOTE.—The three illustrations published are so by permission of Prof. Mercer, who originally published these pictures of Yucatan Caves, and to whom the author returns thanks for this authorization. A. S. A.

ACTUN CEH, BENADO. (*Cave of the Deer.*)

In the Sierra de Yucatan, about two and a half leagues westward from Opichen. The immense underground room, reached after a long clamber in the darkness, is lit from above through a skylight in the middle of its ceiling. The roots of alamo trees on the right hang downward from the brink of the luminous chasm to the cave floor, from which remarkable stalagmitic forms, tinted by contact of light and air, rise on all sides. Several of the prominent surfaces have been inscribed by the ancient cave visitors with dots and circles suggesting the human eyes, nose and mouth, and the outlines of animals resembling deer.

ACTUN XPUKIL. (*Cave of Mice.*)

Actun Xpukil (*Cave of Mice*) is in the mountains, two miles west of the ~~base~~ of

Chalcetok, Yucatan, and four miles from the ruined city of Oxkintok; one of the largest and most beautiful caverns in Yucatan, containing fifty-nine stone water-dishes and many relics of the builders of the neighboring ruins. View from the first rotunda into the second rotunda, showing the effect of the skylight upon vegetation underground. Palm trees flourish in the cooler air. Alamo roots reach the cave floor from the brink of the skylight eighty to one hundred feet above.



SKYLIGHT IN THE WATER CAVE OF OXKINTOK.

The banana trees are growing on a heap of fallen limestone fragments, many of which have been hollowed for water dishes or mortars, or dressed square for wall building by the makers of the neighboring ruins. No trace of the tools was discovered.

Dr. Mercer investigated twenty-nine caves in all. The testimony of the cave at Oxkintok, he says, may stand for all those explored. There was no trace of humanity, no primitive savage. The human evidence began and ended with the layer above. They stood for the builders of the ruins—a people who, judged by the potsherds of the layer, had arrived equipped with the art of making pottery; who had not, therefore, developed their culture in Yucatan, but who had brought it with them from somewhere else. They represented an invasion of the peninsula fairly in accord with the Maya annals—something about a thousand or fifteen hundred years old; modern as compared with humanity in Europe; that was all.

One after another, all the caves expressed only that, more or less clearly as they were more or less fit for excavation. For the reasons stated in his book (*"The Hill Caves of Yucatan: A Search for Man's Antiquity in the Caverns of Central America."* 1897), Professor Mercer was satisfied.

Among the caves investigated were Actun Xpukil (Cave of Mice), lit from above, overgrown with banana groves; Xabaku

(Cave of the Coal-black Water), overhung with trees and ferns, whose recesses were haunted by bees; Xkokikan (Cave of Serpents), where Indians told of intertwining masses of snakes writhing at the bottom of a gulf; Actun Benado, with tinted rotunda lit from above; looks like a Gothic cathedral, on whose walls Indians had carved the figures of animals; and the Cave of Loltun (Rock of Flowers).

Prof. Mercer says: "We have been told that our expedition was a failure because we did not contrive to bring back a store of vases painted with hieroglyphs, remarkable articles of jade, blades of obsidian, or even manuscripts. Forgive us if we did not return laden with these things; if, in the first place, we did not go to Yucatan to find them. Neither did we go there to find fossil man, *but the truth*." He has cited for the first time, he says, the evidence of cases to set a limit to the speculation of archæologists in Yucatan, and fixed a reasonable antiquity for the ruins and the builders of the ruins, and proved, rather than guessed, that the culture of the Maya was *not* developed in Yucatan, but brought from abroad.

As far as the geological antiquity of the human race is concerned, we infer that Yucatan, that centre of archæological interest, has been fairly eliminated from the field of search to find fossil man. We must look for him elsewhere.

Thus we have eliminated from our question (Origin of Man in the Western Hemisphere) possible migration from Asia by way of the Behring Sea, which could have brought the Mayan culture of ancient Mexico, as well as that of ancient Peru. Those civilizations were developed here, and came from nowhere else but America itself. We have, then, left only the stone mounds, alluvial under-beds and glacial soils, or the buried depths of our great forests of South America. Here we must search for evidence of quaternary man. With Quatrefages, I believe that it is in Patagonia or the La Plata and Parana river regions that we will find most striking evidences of fossil man in America—or on those great plateaus, the pampas of Argentina, the abode of our ancient horse. For in France and Liguria the horse was an article of food with quaternary man, and it is reasonable to believe that in any migration he would have taken that animal with him, or followed the wild horse in its wandering from Liguria, as he did the reindeer when it went

with the ice pack northward. There is no greater authority anywhere in the world regarding the introduction of *Equus domesticus* (modern horse) into America than Dr. E. L. Trouessart of France. It is generally accepted that Europeans brought it to the New Continent, and that it was in La Plata that Mendoza, in 1530, introduced horses, and before that time that the natives were familiar with the llama only. Sebastian Cabot's map (the original is in the Seville Library—Archives of India), which he published on his return to Europe, after 1530, contradicts this historical fact, as he figures the horse as a production of the Rio de la Plata. But no faith is to be attached to this assertion of Cabot, depending as it does on doubtful grounds, like the existence of gold and silver mines in the country which he named "La Plata." All the objects of gold and silver which Cabot obtained from natives were brought from Peru and Chili, and no metals of any kind are to be found in that part of Argentina. Cabot, above all things, wished to dazzle the King of Spain, and later the King of England. He, therefore made it appear that the land abounded in riches and supported large herds of horses. Cabot, too, knew that the horse, recently imported into the country, could survive there and multiply in a state of freedom. All navigators before and after him to Rio de la Plata contradict his assertions, and agree in affirming that the natives did not know the horse. Pigafetta, the historian of Magellan's voyage, who visited La Plata in 1519, says that the natives had no other beast of burden than the llama (guanaco). The fiction of the native American horse is ended. It is certain, says Dr. Trouessart, that this animal was imported by Europeans into America, and that the Equidae, which had formerly existed on this continent, were entirely unknown to red men. We recall the terror of the Caribbeans, the Mexicans and the Peruvians at the sight of the Spanish cavaliers; they believed themselves in the presence of a breed of Centaurs.

Geological and paleontological evidence in regard to the Argentine Republic abounds also to prove in the most convincing manner that there elapsed a period between the extinction of the indigenous American horse and the appearance of the domestic horse imported from Europe, which was quite long enough to be appreciable geologically. This is the point which is now to be demonstrated.

I quote from Dr. E. L. Trouessart, ("The Fiction of the American Horse, and the Truth on the Disputed Point," *Science*, Vol. XX., No. 504):

"We know that the horse of three toes (*Hipparion* or *Hippotherium*) existed in the north of the two continents at the end of the tertiary period (Pliocene and Quaternary). The genus *Protohippus*, considered the direct progenitor of *Equus*, differs very little from *Hipparion*, and may be regarded as a simple sub-genus of the latter. This genus, *Protohippus*, which numbers several species, lived in North America during the Pliocene epoch. The true genus, *Equus*, appeared soon after in the same country (from the Pliocene epoch), and several species (*Equus crenidens*, *E. barcæni*, etc.) are contemporaneous with *Hipparion* and *Protohippus*.

"A genus akin to *Equus*, the genus *Hippidium*, is found also in the Pliocene age of North America (*Hippidium spectans*, Cope). This genus is the only one (with the true *Equus*) which is found in the Quaternary epoch in South America. Indeed, *Hipparion* and *Protohippus* are not known there, and *Hippaphys* (*Ameghino*) is too little known to take up our attention here. There seems to be no doubt, therefore, that the South American horses of the Quaternary age spread gradually across the continent, from Mexico to Colombia, Brazil and the Argentine Republic, for before this period *Macrauchenidæ*, the *Proterotheridæ* and the *Tapiridæ* were the only Perissodactyls living in the last-named country.

"The South American horses (genus *Hippidium*) bear characteristics which forbid confusing them with the Hipparions and the horses of the North. Those of South America had thick, squat bodies, large heads, slender legs tapering to small hoofs; their molar teeth were of a shape more square than those of the true horse. These peculiarities are found again, in a measure at least, in horses of the same country which have been referred to the true genus *Equus*. In the same way, the *Equus lundii* of Boas, which lived in Colombia in the Quaternary period, has been compared to the zebra because of the thickness of its form. The other species which were found in the Argentine Republic are *Equus curvidens*, *E. argentinus*, and *E. rectidens*; this last is the one which lived longest in this country, where it must have been hunted and eaten by prehistoric

man. In the 'étage platien' (upper Quaternary) are found bones of this horse (*E. rectidens*) associated with chipped stone implements, with pottery, fire refuse, etc., which are the evidences of the presence of man. The long bones of this horse are often split for the extraction of the marrow and the skull broken for the brains. The shape of the teeth enables one to distinguish at once between the *Equus rectidens* and *Equus caballus* of Europe.

"If we study now the geological strata of the Argentine Republic, we may form the following table whose elements we borrow from Mons. Fl. Ameghino :

ETAGES.		EQUIDÆ QUI S'Y TROUVENT.	
<i>Aerien</i> (actuel)	<i>Equus caballus domesticus</i> .	
<i>Aimara</i> (récent)	(Pas trace d' <i>Equidæ</i>).	
<i>Platien</i> (post-pampéen lacustre)	<i>Equus rectidens</i> .	
<i>Guerandien</i> (post-pampéen marin)	(Pas de Mammifères terrestres).	
<i>Lujanien</i>	} Pampéen {	<i>Equus rectidens</i> .	
<i>Bonairien</i>		<i>Equus argentinus</i> .	
<i>Belgranien</i>		<i>Equus curvidens</i> .	
<i>Ensenadien</i>		<i>Hippidium</i> (5 sp.).	
		<i>Hippaphys</i> (2 sp.).	

"This table, in which the 'ensenabien' formation is the most ancient, and the layer 'aérien,' or actual, the most modern, shows, in the most evident manner, that the true horse of South America (*Equus rectidens*) was extinct a long time when *Equus caballus*, coming from Europe, made his first appearance in the Argentine Republic.

"Indeed, the 'Aimara' formation, where bones of the llama (*Auchenia guanaco*) are abundant, presents no trace whatever of the genus *Equus*.

"This geological proof seems to me to be absolutely incontrovertible, and reduces to *nil* hypotheses built on the apocryphal documents left by an adventurer like Sebastian Cabot, the inaccuracies of which, not to say the fancies, are shown by the examples we have cited.

"The true horse (*Equus*) has been scattered more widely, and has given rise to more species in North America than South America. It is interesting to recall here that the remains of *Equus caballus* have been discovered in the Quaternary beds (Pleistocene) of Canada and of Alaska. It is, therefore, certain that this species has existed in the *wild state* in the American Arctic region. But it is not less certain, according to all

historical documents, that this animal had not existed for ages when it was introduced by Europeans in the early part of the 16th century. What is the cause which brought about the extinction of horses in North America, as in South America, before the commencement of the present period? This is not the place to discuss that question. But I cannot refrain from remarking that the extinction appears to have coincided with that of the *Proboscidiæ* (Elephant, Mastodon), and can consequently be attributed to the same causes which are to be sought in the environment of these *Herbivoræ* (nourishment, nature of the soil, etc.).

"For the present it will suffice to establish that the *Mastodon superbis* was contemporaneous with the *Equus rectidens* in the Quaternary (Pleistocene) of the Argentine Republic. Also *Elephas primigenius* is found with *Equus caballus* in the same age in North America. All these types of animals became extinct in the New World, although horses and elephants have continued to live in Asia and in Africa up to the present time."

Thus we see that not only the mastodon and the elephant were here, but also the horse, with quaternary man, just as they had been with him in Liguria in ancient France. And, as has been shown they were contemporaneous with ancient man in La Plata, the present habitat of Guayaquis Indians.

In all probability, as the ice pack slid northward on this hemisphere, ancient man emigrated northward with the useful reindeer in *latitude*: he also emigrated in *altitude* with his beloved llama, and from this last descended the Incas of Peru and Bolivia. But some must have remained behind with the horse on those pasture lands, and these were the ascendants of Guaranis and other South American Atlantic Coast tribes. Different cultures have developed from the different emigrations—Incan, Mayan, Mound Builder, etc.—but most remained savage. All had the same origin—the Ligurian emigrant.

Part II. of *Paleontologia Argentina*, a continuation of the "Anales del Museo de La Plata," consists of contributions to our knowledge of the fossil vertebrates of Argentina, by R. Lydekker, in three parts, covering the Dinosaurs (Great Lizards) and Cetacea (whales and porpoises) of Patagonia; and the Ungulates (hoofed ruminants, swine, horses, etc.) of Ar-

gentina. (You see the ruminants belong to Argentina.) There are 32 plates in the work. The Dinosaurus from Patagonia belonged to Marsh's division of Sauropoda (fossil reptiles like those in the Rocky Mountains, especially *Opistho coelians*), not hitherto described. These reptiles strangely agree with North American Dinosaurs. Some of the plates illustrate Titano-Sauridæ (gigantic fossil reptiles of the Miocene period). The Cetacea came from a marine deposit of the territory of Chubet, and represent especially fossil sharks, silver porpoises, and dolphins. The most important section of the memoir relates to the *extinct Ungulates* (hoofed animals), which describes the superb collection of La Plata Museum, the aberrant Toxodonts (TERTIARY extinct South American mammal), Artio-dactylia (cloven-hoofed quadrupeds), and Perissodactylia (odd-toed animals, tapirs, rhinocerus and horses).

The *colossal* animals of Patagonian plains and the pampas of Argentina, the armadillos (*Megatherium* and *Glyptodon*), the llama as large as a camel, the American horse, the elephant, the toxodon, and *chiamyphorus*, are now extinct in La Plata. Yet animals of the same type, but smaller, still exist; the llama, the vicuna, and two species of deer, are still there. The largest of the rodentia is the water-pig (*Carpincho*). There are also the tapir, the cougar or puma (American lion), the tiger (*Jaquar*), and the ounce. Around the salt lakes of the pampas of Argentina, the finest pasture lands of the hemisphere, they are found. Here many animals would be attracted, which would in turn bring man for the chase and ferocious animals for their prey. In this section, therefore, we should be able to find earliest evidence of fossil man, along with extinct animals, buried in the peats or caves, as they are found in Europe or in the alluvial washings of rivers. Quatrefages thinks that fossil man in America should be looked for in Patagonia. Dr. Florentino Ameghino of La Plata has published an important pamphlet, "*Sur les ongles fossiles de l'Argentine*," which criticizes M. Lydekker's memoir, "*A Study of the Extinct Ungulates of Argentina*," especially for relying on collections in the museum, instead of examining Dr. Ameghino's collection of fossil mammals, which contains about 750 species, representing 50,000 specimens. The *Theomora* or mammalian-like reptiles, which Prof. Seeley described

from South Africa are among the rich mammalian fauna of South America.

Both South American and South African continents give evidence of highly varied and rich-land vertebrate fauna in Mesozoic and early Tertiary times. These facts point to a *far greater former extension of these land areas*, and even to *extensive connection of those southern continents*, similar to those which existed in former times between the northern continents. Dr. Ameghino refers a number of Patagonian mammals to the Marsupialia, and they are strikingly like the Australian Marsupials. In the Pyrotherium beds of Patagonia, in the Province of Neuquen, he determined the geological and faunal character of the formation of lacustrine origin, and in a cretaceous basin, full of Dinosaurs. These beds underlie Patagonian deposits contemporaneous with our lower Miocene. This region is very similar to that of our Rocky Mountain, like basins, so dry that it is necessary to transport water on mule-back. The characteristic mammal of these beds is Pyrotherium, a sub-order of Ungulates, which Dr. Ameghino considers to be the direct source of the Proboscidea. "If this large mammal had been found in Europe or Asia, no one would have hesitated," says Dr. Ameghino, "to regard it as uniting the characteristics of the Dinotherium and Mastodon. The structure of the lower teeth of mandible, of femur, is purely proboscidean; the astragalus, however, is different, comparable to Marsupials." He thinks that the Pyrotheria represent a group of Ungulates related to Marsupials, but still ancestors of Proboscidea. This conclusion is disputed, as it presents a single pair of lower incisors, like those of diprotodont Marsupials, and similar also to oldest types of Mastodon Augustigenis.

Nevertheless, we can see how types of animals have varied; and is it not then permissible to assume that man himself has varied from his original type of ancient Liguria?

In the Loup Fork tertiary of Kansas a "sabre-toothed" tiger's tooth was found, which places that American animal in direct relation with the Machærodus Nestrans of the upper Pliocene of Italy (ancient Iberia).

Dr. C. C. Abbott believes the American Indian is a type of man distinct from all other people. He came from a region of the world when man was not racially developed as now, and in

a comparatively primitive condition. Here, in America, he developed into a potter, invented a bow, and gradually reached the status of Indian development. "As a student of Archæology," he says, "I submit that this occupancy of the continent commenced when there was a changing condition of the river valleys in progress, but whether that change was subsequent to the glacial epoch, or during it, deponent sayeth not." He claims that it was during a time when rock transporting floods were common. That it was when ruder than ordinary Indian implements were the common tools of the people. "It is true," he says, "paleolithic and Indian objects are now associated, but they are also separate and apart." He contends for the sequence of events of the original use of a rude weapon or tool, the one implement of that day that was manufactured, and, as time rolled on, the production of more elaborate forms, and all this pertains the world over to the accepted Neolithic stage of human development.

Finally, the vast researches of Professors Wright, Prestwich, Emerson, Dr. Andrews, Mr. Gilbert, and Mackintosh, as to the period of the termination of the last glacial epoch have been corroborated by the beautiful discovery of Professor Drayson, the astronomist of the Royal Military Academy at Woolwich, of the *second* rotation of the earth. His works are entitled "Thirty Thousand Years of the Earth's past History," and "Untrodden Grounds in Astronomy and Geology." Thirty years devoted to this research has resulted in the discovery that the Glacial period, or, more properly speaking, periods, occupy 20,000 years, whilst the last terminated about 6,000 years ago.

The earth has three principal movements: daily rotation, annual revolution around the sun, and a slow second rotation, which causes the half-axes of daily rotation to trace cones during a period of 31,600 years.

The second rotation consists in the pole of the heavens describing a circle round a point situated six degrees distant from the pole of the ecliptic, having a right ascension of 270 degrees, and at an angular distance from the pole of the heavens of 29 degrees, 25 minutes and 47 seconds; this angle depends upon the position of the centre of gravity of the earth, the earth being a gyrating sphere, and so following the ordinary laws of gyration.

The two semi-axes of the earth by this movement describe cones, with apices at centre of gravity, which with the earth corresponds to the centre of the sphere. He calculated by this law, and by these data, the polar distance of a star for more than a hundred years from one observation only, and to the decimal of a second of an arc. The obliquity of the ecliptic can be ascertained during the revolutions of the poles, which are calculated to occupy 31,682 years in completing a circle. Hitherto the completion of the conical motion was supposed to be about 25,000 years, without variation during that time in the extent of Arctic Circles and Tropics.

Knowledge of the second rotation proves that a variation of twelve degrees in the extent of the Arctic Circle and Tropics occurred not later than 13,500 B.C. The procession of the equinoxes is ascertained to be the result of the second rotation, and the rate of procession is proportional to the *sine* of the obliquity of the ecliptic at the time indicated in its every-varying amount, from the minimum 23 degrees, 25 minutes, 47 seconds to the maximum 35 degrees, 25 minutes, 47 seconds.

With such a difference, it follows that at the height of the glacial period, when the obliquity attains to 35 degrees, 25 minutes, 47 seconds, the Arctic Circle will have crept down towards the Equator, *in both hemispheres*, twelve degrees, which will thus cause the tropics to extend to the same amount towards the poles, and so extend the tropical zone *from Cape Hatteras to the River Plata*.

Under such conditions the human mind fails to conceive the vast changes which must be brought about every six months from the mighty floods caused by the intense summer heat and the intense cold of the arctic winter alternating with each other. To them is due the remains of arctic and tropical animals imbedded together in the same drift in their migrations towards the latitudes which their nature demanded; and so must man move in accordance with the necessities of the time as regards temperature and its consequences.

It is calculated that 403 years distant the pole of the heavens, the pole of the ecliptic and that of the second rotation will be in the same *colure*—that is, in 2,295 A.D., when the least difference in temperature between summer and winter will be experienced. Then the difference will begin to increase until,

six thousand years later, or about 8,300 A.D., the earth will enter the next Glacial period, and attain its greatest severity about the year 18,136 A.D.—that is, when the half revolution of the pole, occupying 15,811 years will have been completed from the point indicated of the pole and two centres being in the same colure.

Geology has attested the accuracy of this discovery (*Science*).

Regarding the climatic conditions of the Glacial or Pleistocene and Post-glacial times, Professor Geikie of the Edinburgh Geological Society shows that at the climax of the so-called Glacial period the line of perennial snow in Europe was depressed for not less than 3,500 feet on an average. To bring about such a depression the mean annual temperature must have been lowered 10° or thereabout. A full consideration of glacial phenomena led him to the following conclusions: 1. That the cold of the Glacial period was a general phenomenon, due to a cause sufficient to influence contemporaneously the climate of Europe and North America. 2. That glaciation increased in intensity from east to west, and from south to north. [Therefore it was greater in North America than in Europe, and less in South America than in North America.] That where there was the greatest rainfall there was the greatest snowfall. 4. That in the extreme south of Europe and in north Africa and southwestern Asia increased rain precipitation accompanied lowering of temperature, therefore precipitation was greater in Glacial times generally than it is now.

Remarkable inter-glacial conditions interrupted the Glacial period. Great oscillations of climate, extreme cold and genial conditions alternating, as shown by post-glacial beds accumulated under different circumstances. And lastly, in both Pleistocene and post-glacial times *changes in the relative level of land and sea had taken place.*

American geologists have attributed the phenomena of Glacial times to movements of the earth's crust. Geikie pointed out that there was not evidence of great continental elevation in the northern hemisphere such as this hypothesis postulated. That even if earth movements were admitted, they would not account for the phenomena. Neither great elevation of northern lands alone, nor such elevation accompanied

by submergence of the Isthmus of Panama, the deflection of the Gulf Stream, would account for the peculiar conditions of the Ice age. These changes would profoundly affect the maritime regions of North America and Europe, but would not reproduce the conditions of the climax of the Ice Age. Inter-glacial conditions also opposed the theory of earth-crust movements. The earth-movement hypothesis must be rejected, not only because it was improbable that such wonderfully rhythmic elevations and depressions of high northern lands and of the Isthmus of Panama could have taken place, but because it did not explain the conditions of the Glacial period, while practically ignoring inter-glacial times. He refers to proofs of former submergence, so often met with in temperate and northern latitudes, and considers the objections raised to the physical theory of the Glacial period as advocated by Mr. James Croll. "The objection was based on the rate of erosion of river valleys, accumulation of alluvial deposits, by which it was sought to show that only some 7,000 or 10,000 years had elapsed since the close of the Glacial period. This, if true," he says, would bring the close of the Ice Age down to the dawn of civilization in Egypt, which is startling! But the estimates of this rate are unreliable. Dr. Croll's theory might some day be supplanted, but not by inconclusive measurements of that kind. The theory holds the field, in giving the consistent interpretation of the climatic vicissitudes of the Pleistocene and post-glacial periods, while throwing light on conditions obtaining during inter-glacial times.

[THE END.]

The American Association of Obstetricians and Gynecologists held its sixteenth annual meeting at Chicago, September 22-24, 1903, and the following officers were elected for the ensuing year: President, Dr. Walter B. Dorsett, St. Louis; vice-presidents, Drs. A. B. Miller, Syracuse, N.Y., and W. D. Haggard, Nashville, Tenn.; secretary, Dr. Wm. Warren Potter, Buffalo, N. Y., re-elected; treasurer, Dr. X. O. Werder, Pittsburgh, Pa.

The time and place for holding the next annual meeting of the associating were left to the Executive Council to decide.

A GOOD METHOD OF TREATING CHRONIC ULCUS CRURIS.

BY A. H. OHMANN-DUMESNIL, OF ST. LOUIS.

In the treatment of diseased conditions we are ever striving to find methods that are not only good, but better than those which we have been accustomed to use. Among the conditions which are continually confronting the physician is chronic ulcer of the leg, and it is equally true that it is one of the most stubborn with which he has to contend. The difficulty which is experienced in treating this lesion successfully is attested to by the very large number of methods which have been published at various times by different physicians and surgeons. In fact, this matter has come to the point of being avoided by many and of being looked upon as an *odium medicine*. Each one, of course, has a method to propose after having used it successfully as far as present results are concerned, but a relapse occurring some few months afterwards, shows it to be the same disappointment as its predecessors turned out to be. It is for this reason that the writer has considered it not inopportune to outline a plan which has proven both successful and lasting in its final results.

Before touching upon the treatment of chronic ulcer of the leg it may not be superfluous to call my readers' attention to a very important matter, and that is a proper recognition of the sort of ulcer he has to deal with ere he attempts to treat it. It must be remembered that we have syphilitic, tuberculous and leprous ulcers which require special methods more particularly adapted to them. Then again there are phagedenic and varicose ulcers of which the former can hardly be called chronic. There exist also a few other ulcers due to exotic causes and, naturally, they do not enter into the purview of this article. The treatment which is about to be outlined is one which is applicable to and intended for non-specific simple ulcers which are chronic and particularly affect individuals at or near middle age. These are the ones who chiefly suffer from lesions of this sort from the fact that it interferes with the ordinary conditions of life, but more particularly because the good and infallible salves of the grannies have proven failures, as they usually do in such cases. One variety of ulcer which will also not be considered in this paper is the carcino-

matous which naturally necessitates a different form of treatment or more surgical and radical in its character.

The method in brief is as follows: the ulcer is first curetted, the hard edges being removed by the sharp edge of the curette so as to remove a possible obstruction to a proper healing. The blood is prevented from flowing too much by the application of sterilized gauze with pressure. After the surface of the ulcer is dry a dressing of gauze saturated with Bovinine is applied, a bandage being lightly thrown around to hold it in place. This dressing should be renewed at least three times a day and, in a very short time, granulations will be observed forming. They will be healthy granulations full and firm, and such as will show very plainly that the reparative process is good and will be of a permanent character.

As an example of what this treatment will do, a short sketch of an example is given.

CASE.—Mrs. G—, a married woman, aged 41, the mother of five children, came for the treatment of an ulcer of the leg which had existed over six years. She stated that she had tried everything in the way of lotions and ointments without result. Adhesive plaster straps and the solid india-rubber bandage were equally unsuccessful. The woman was somewhat pale and looked worn out. Accordingly she was placed upon Bovinine, two teaspoonfuls four times daily, and the treatment outlined above was carried out faithfully by the patient. Although the case at first appeared unpromising, it succeeded very well. Granulations appeared in three weeks, and in six weeks the ulcer was practically healed. This was a case which several physicians looked upon as being hopeless. The final outcome of the treatment with Bovinine demonstrated how mistaken they were in their prognosis.

Other cases of a similar character could be related, but what certainly may be looked upon as a test case has been given above and the good work done by Bovinine should certainly induce others to give this valuable agent a trial in similar cases coming under their care.

THE CONTAGIOUSNESS OF PNEUMONIA.*

BY ROBERT N. WILLSON, M. D., PHILADELPHIA, PA.

The following series of three cases of acute croupous pneumonia is reported both because it undoubtedly presents an instance of direct contagion and because the contagious nature of pneumonia does not yet seem to be generally recognized.

In spite of all modern teaching with regard to the acute infectious form of the disease, the old idea still seems to dominate the minds of the profession as well as of the laity, that pneumonia is an inflammation of the lungs due to exposure to cold and wet, and that it occurs, except in rare instances in damp and cold weather; also that cases recover or die without reference to one another.

No one attempts to deny the fact that pneumonia is an infection of the general system in which the lungs primarily suffer; but many fail to keep this fact in mind for long at one time. Very few seem also to remember that a fatality in pneumonia is not due to the involvement of the lungs as much as to the general systemic infection, and to the crippled cardiac action, which may finally give way altogether. Attention has been drawn more and more closely in the past two years to a feature in the transmission of the disease that would appear to stamp it as certainly one of the typical, though not one of the highly contagious diseases.

Of the following patients two were brothers, living in the same house, but not in the same room; while the third was a collegemate who boarded with them. All were in the same room during my first visit to Case I, and the latter was waited upon for two days by his brother (Case II). Case III was simply in and out of the sick-room during the two days before Case I was transferred to the hospital, and had nothing to do with the nursing or handling of the patient.

The clinical histories were, in brief, as follows:

CASE I.—F. H., a medical student, at the University of Pennsylvania. Aged 20 born in Porto Rico, but had been in this country 2 years. Had had pneumonia once about 2 years before. Had had tonsillitis 5 times. Was seen by me on November 2, 1901, in a severe attack of unilateral (right-sided)

*Read before the Philadelphia County Medical Society, Sept. 9, 1903.

tonsillitis (the sixth in his life), from which he recovered clinically in a few days. Nineteen days later (November 21, 1901) I again saw him, and learned that he had been well about 2 weeks and at his work. He had not been exposed to cold or wet at any time since his tonsillitis. The night previous he had had a severe chill, then active muscular and bone pains all over the body, also cough and considerable expectoration. There was no blood in the sputum, which gave, however, a pure culture of the *diplococcus pneumoniae*. When examined by me he was found to be generally "sore" to the touch, and, on movement all over the body. He was mentally rather stupid and dull, except when roused, when he would answer questions clearly, but drowsily. His lungs showed moist rales over both bases, but no crepitation, no tubular breathing and no dullness on percussion at any point. Expiration and inspiration were free and caused no pain. There was no appreciable increase of tactile fremitus. The physical examination was negative otherwise. His temperature was 104.8° F., respirations 40, pulse 148. On the next day (November 22, 1901) his temperature was 102.4° F., pulse 118, respirations 24. He was much more comfortable, had less pain in the muscles and bones, but now complained of a sharp pain, though not severe, over the right shoulder, and the right pulmonary apex, and nowhere else. The sputum contained bright red blood. Over the lower lobe of the right lung posteriorly there was loud tubular breathing and the percussion note was flat. No rales could be heard. Over the left base a few moist rales. Both sides anteriorly were negative. He was then transferred to the University Hospital, where he ran an ordinary course of croupous pneumonia, with the crisis on the eighth day. Complete recovery followed.

CASE II occurred in a brother of Case I, V. H., also born in Porto Rico and also a student in the University of Pennsylvania. He had nursed his brother for the first two days of his illness, and had seen him occasionally in the hospital after that time. He had always been active and well. He never had pneumonia or tonsillitis. On November 27, 1901 (7 days after his brother), he had a severe chill at 3 A.M. The day before he had a headache and anorexia. There had been no exposure to cold and wet. Following his chill he had pain in his right side, and cough. There was very slight expectoration. He was sent

to the University Hospital by Dr. Swan, with the diagnosis of pneumonia, on November 29, 1901, and at that time showed rusty sputum, slight stupor, face flushed, breathing labored and a temperature of 104° F. The chest showed impaired resonance on the left side in the axillary line as high as a line corresponding to the nipple. There was typical bronchial breathing, but no crepitant rales could be discovered. The patient complained of sharp pain in the left side in the axillary line. This case also ran a typical course of pneumonia. The patient was bled 16 ounces on December 2, 1901, to relieve cardiac distress, and from then on progressed favorably, though there was no decided crisis. The temperature remained between 102° and 100° F., with a fall of one to three degrees after each injection of antipneumococcic serum. On December 11, 1901, it became certain that an effusion was present in the chest, a quantity of bloody serum being removed by aspiration. On December 18, 1901, he was again aspirated, pus being suspected and determined by this procedure. On December 19, 1901, he was operated on by Dr. Frazier, and the pyothorax drained. He was discharged cured about a month later. I am indebted for the notes of this case to Dr. Tyson, in whose care he was at the hospital.

CASE III occurred in another student, R. F., aged 19, also a Porto Rican, who was boarding with the family of Cases I and II. He had always been strong and well and there had been no exposure to cold or wet, nor injury of any kind. Two days after Case 1, on November 22, 1901, he had a severe chill, and was taken to the Medico-Chirurgical Hospital, where he experienced a typical case of acute croupous pneumonia, from which he also recovered after the ordinary period. He was in bed three weeks, his crisis occurring on the seventh day of the disease.

It would admit of little doubt in the mind of anyone that if three cases of any infectious disease occurred within a few days in a household which had been previously healthy and free from ailment, there must be either a common infecting source, or each case must depend upon one preceding it. In the instance of Case II there existed the possibility that some of the sputum of Case I might have been carried to the mouth of the former by means of his hands, although he was strictly warned against

this and knew the danger. He was also told not to confine himself to the sick-room, as the case was thought in the beginning to be one of influenza. This means of transmission and infection was, therefore, an unlikely one. In Case III it could be absolutely excluded, as the latter had not had any part in the nursing of Case I, and had merely visited in his room, during the first two days of his illness. The fact that no other cases developed in the house subsequently, is easily explained on the ground that no one else was allowed in the room except the mother of Cases I and II. Cases II and III, therefore, would seem to have been infected by direct contagion from Case I, unless some other more likely source of infection can be suggested and it would certainly appear that the contagion was transmitted by airborne means.

Several interesting questions arise as the result of such an occurrence:

1. What influence had the preceding tonsillitis (probably, as very often occurs, a diplococcus infection) upon the pneumonia of Case I?

2. What influence had the original attack of tonsillitis upon Cases II and III of pneumonia?

3. What relation was there between the pneumonia of Cases I, II and III?

4. Could all three cases have been instances of independent infection?

In answer to Question 1, it must be admitted that tonsillitis is frequently a pneumococcus infection. The writer studied, with the late Dr. Frederick A. Packard, a long series of cases of tonsillitis during the winters of 1901-02, which appeared to have been caused solely by the diplococcus pneumoniae. Even when other organisms were present they usually appeared in much smaller numbers, so that it seemed probable that the cases of streptococcus and staphylococcus infection were the exception rather than the rule. It is no new assertion to state that tonsillitis is a highly contagious condition and that the contagion seems far more active in certain instances than in others. If this be true, and if we grant that this contagious affection is often, if not always, due to the pneumococcus alone or in combination with some other organism, it would follow that there are certain occasions on which the harmless pneumococcus,

which is found at all times in the mouth and on the tonsils, may be transmitted through the air, just as is the contagious principle of measles and scarlatina and other diseases of this class. This is entirely apart from the known fact that when the vitality of an organ is lowered, as in the case of the tonsil or the bronchus or the lung, the pneumococcus, which is ordinarily innocuous, finds a suitable ground for development and attack. It assumes a new ground, that the microorganism can of itself take on a virulent nature, or be transmitted as a contagious principle, or both. Once the truth of this is demonstrated, we must admit the possibility of the contagion from tonsillitis resulting in bronchitis and pneumonia. Clinical facts indeed indicate the probability of this very thing.

Kerr has recently reported twenty-three cases of acute bronchitis in children, which terminated in bronchopneumonia. Nine of these cases of bronchopneumonia followed exposure to cases of bronchitis, not pneumonia, a similar infection to that from the tonsil and from a locality slightly more remote.

No one will question the fact that a simple "cold" often passes from member to member of an entire household, without other ground of explanation than one of contagion. Occasionally these "colds" result in bronchitis and even in pneumonia. Of course such a pneumonia is, in most instances, the result of the extension of the infection and inflammatory process along the bronchi and thence to the pulmonary tissues. When, however, it is of the acute croupous type, this is not true, and we have before us a different type of infection. When this acute croupous pneumonia occurs, without the preceding catarrhal symptoms, suspicion is directed at once to the cause of the "colds" in other members of the family.

In considering Question 2, "What influence had the original tonsillitis of Case I upon the pneumonias of Cases II and III? we must admit at once the possibility of a pneumonic contagion directly, in Cases II and III, and even in Case I, from a tonsillitis; and of a pneumonic contagion from a pneumonia in Cases II and III. Thus, Case I experienced his initial symptoms of pneumonia on November 20, 1901, nineteen days after the acme of his tonsillitis, but only one week subsequent to the disappearance of his "sore throat," *i. e.*, the disappearance of the tonsillitis. Case III experienced his chill and pneumonic

onset on November 22, 1901, two days after Case I, and only nine days after the complete convalescence of the latter from tonsillitis, to which Case III was frequently exposed. This would admit of an incubation period of seven days for Case I, and nine days for Case III, provided the origin of the contagion was the tonsillar infection in Case I.

Case III was attacked on November 27, 1901, or fourteen days after the last sign of tonsillitis in Case I. These possible periods of incubation would average about the time occupied by the dormant stages of most infectious and contagious diseases and the occurrence is certainly suggestive. The possibility of direct infection from the sputum must of course be considered in Case II, and renders the latter of less importance in the discussion. The same fact renders it more likely that the infection in Case II originated in the pneumonia of Case I, rather than in the tonsillitis.

Question 3, "What relation was there between the pneumonia of Cases I, II and III?" is also of interest. Between the initial symptoms (chill, pain, vomiting, etc.) of Cases I and III, two days only transpired, and between those of Cases I and II seven days, and between Cases III and II five days. It is, therefore, equally possible and probable that Cases II and III may have been instances of contagion from a pneumonia, either Case III from I, and II from III, or both III and II may have resulted from the contagion of I. The sputum of Case I (the only one of the three in which the record was preserved) contained a pure culture of the pneumococcus. No doubt need exist that all three were cases of pneumococcus infection and with this probability becomes even more likely the dependence of each subsequent case upon one or the other that preceded it.

Our final query, "Could all three cases have been instances of independent infection?" (*i. e.*, simple coincidences) must be answered with a doubtful affirmative. While certainly possible, the occurrence is as certainly unlikely. Pneumonia was not epidemic at the time to any great extent in Philadelphia. Had the cases occurred at greater intervals or in different households, the possibility must needs become more vigorous; but when three cases of identical infection occur within one week in the same house and among three intimate associates—we must yield that the weight of probability balances the scale in

favor of a sympathy, a contagion, by means of which the virulent pneumococcus passed from Case I to the other two.

During the present year, in the month of June, I saw two cases which strikingly evidenced the same probability, and in this instance almost a certainty, of pneumococcus contagion.

Case I was that of a lady seen in private practice, aged 59 years. She was a sufferer from asthma and hay catarrh of long standing, and had also been treated by Dr. Packard during his last years, for a severe chronic mucuo-enteritis, from the latter of which she seemed to have almost recovered. I saw her on June 11, 1903, and found the lower lobe of the left lung intensely congested, everywhere crepitant rales and considerable impairment of percussion resonance, temperature 103.5° F., pulse 132, respirations 48, following a chill. Her condition gradually improved during the next two weeks, until the crepitant rales were succeeded by moist rales and the patient convalesced. The slight impairment of resonance over the left base persisted so long a time that there has always existed a doubt in my mind that there may have been a patch of consolidation within the lung, which did not present the usual physical signs. The sputum in this case was very scanty, never blood-tinged, but full of diplococci. On June 22, 1903, eleven days after the chill in Case I, her husband, a physician of 82 years, had a severe chill and complained of pectoral pain. There was no exposure to cold or wet in either case. Case II had been slightly uremic for some time, but was otherwise active in his enjoyment of daily life. He had a typical attack of croupous pneumonia with a crisis on the eighth day, and collapse, during which he appeared moribund. Under hypodermic stimulation and oxygen he reacted, and to-day is in better health than in years.

Both of these cases occurred at a time when pneumonia is rather unusual than otherwise, no other cases were known in the vicinity at the time and one followed the other so closely as to make the contagion from the former the probable source of infection in the latter. It is needless to say that Case II, an old man of eighty-two years, did not derive his infection by contact with the sputum of Case I. He was, however, constantly in the room during the first few hours of his wife's illness and occasionally thereafter.

Many instances occur of a similar nature and the present year has offered an unusual number for study. In the issue of Public Health Reports (Washington), dated May 29, 1903, thirteen cases of acute pneumonia are cited, all of which occurred in rapid succession in one business office. In the same volume, but of date May 15, 1903, it is stated that in Chicago, during two months, March and April, of this year, 1,186, or 22 per cent. of all deaths (5,341) occurred as the result of croupous pneumonia. Surgeon Banks states in this report that one consultant noted four consecutive deaths in one family and six more among the friends who attended the funeral.

Anders has recently compiled a table (*J. Am. Med. Ass.*, May 9, 1903) which shows that "pneumonia is more or less limited to centers and these correspond in the main to the most densely populated areas, with their allied conditions of squalor and poverty." The most likely reason that can be ascribed for such a state of affairs is, of course, the lack of care and cleanliness that pertains under such conditions and the unparalleled inducements to contagion. It would seem as though, just as Reed and Carroll have compelled us to lower the mosquito net over malarial patients, we, who formerly were told to avoid swampy districts and the night air, must also isolate our cases of tonsillitis, bronchitis and pneumonia and nurse them after the manner of other contagious disease. Certainly all sputum should at once be destroyed and perhaps all secretions and excretions; and if in cases in which this is promptly done (as in Case I of both the first and of the second series), the contagion is still passed on, we must then make our quarantine a rigid one until the danger has passed by.

It might have been more appropriate to entitle this paper "The Contagiousness of Pneumococcic Affections," including in the term rhinitis, bronchitis, tonsillitis, pneumonia, etc.,—or in short, any involvement of part or all of the respiratory or other tracts that depends upon the pneumococcus of Fränkel. The subject of pneumonia is to-day such a vital one, however, that it seemed to the writer more salutary to direct attention to it alone, as a stimulus to the study of the entire subject. Certainly we need to find some stay to the ravages of this affliction, which has of late years outrun even the "white plague."

THE TREATMENT OF LEUCORRHOEA.

BY LAFAYETTE BENNETT, M.D., OF CENTRAL CITY, KY.

Two indications present themselves for consideration in all cases of leucorrhoea which present themselves to us for treatment. Any constitutional vice present must be given appropriate treatment as well as any associated disease. It is a fact that most cases of leucorrhoea will respond readily to purely local treatment, but results to be quickly attained, and of a permanent character, must be the result of local and general treatment, when such is necessary. I have found most cases will yield to local treatment of a correct character, but if the general health of a patient is run down, this must be given attention. If a patient is anaemic, or syphilitic, or has in fact any constitutional disease or dyscrasia we should begin with measures for its control with our first attention to our patient. When the patient will follow our directions we will have good results except where the general health has been brought too low to enable the patient to respond to treatment. I may say in general terms, therefore, that when we see a patient with leucorrhoea, we should make diligent inquiry in order to ascertain whether or not there is any constitutional disease or dyscrasia present. If any is found, it should be treated according to accepted principles.

As a remedy for the local disease no agent is more trustworthy than Dermapurine. One ounce of Dermapurine to six of water, and this should be injected three times daily until improvement is manifest, and then twice a day and then later on once a day—on going to bed. Dermapurine contains the active principles of eucalyptus and pine; boroglyceride formaldehyde, citric acid, zinc sulphophenate, bichloride, alcohol, etc. Used in the manner already described, it quickly relieves the patient of the discharge, and the odor, always so unpleasant in these cases, is at once stopped. In most all cases Dermapurine will be found sufficient treatment in itself. Patients are pleased with the results—with the cessation of the odor and the gradual lessening of the discharge.

A patient aged thirty-three, came to me for treatment of leucorrhoea which had been giving her much annoyance for a year. I found no constitutional vice to account for it beyond a slight anaemia. She was given some Iron and Dermapurine

was used in the manner already described. This patient made a prompt recovery and has had no discharge since.

Another patient, twenty-nine years old, had had leucorrhoea and slight prolapsus for a year, which she attributed to heavy lifting. She was given no internal treatment, but the Dermalpurine injections were employed regularly, and she was entirely recovered in four weeks. She now feels strong and says she is in better health than for years before.

A lady, aged forty-five, had leucorrhoea of a rather profuse character. I attributed this to gonorrhoeal infection. She took only local treatment—Dermalpurine injections and made a prompt recovery.

ADRENALIN AND ITS USES IN GENERAL SURGERY.

Under the above title an article appears in the October issue of the *Indian Medical Gazette*, from the pen of Harry Gidney, F. R. C. S. (Edin), D. P. H. (Camb.), etc. The author finds that "the clinical usefulness of Adrenalin is very great and extensive, and owing to its power of rapidly and effectively producing vaso-motor constriction, it is adapted to the treatment of all inflammatory conditions. The drug is also of extreme value in arresting hemorrhage during all surgical operations. It is indicated whenever and wherever any local hyperaemia exists, more especially in inflammations of mucous surfaces, such as those of the eye, throat, larynx, pharynx, urethra, bladder, nose, rectum, vagina, uterus, stomach, etc. It is used not only to stay hemorrhage when it exists, but also as a preventive or controlling remedy, given either internally or externally prior to an operation, so as to lessen the amount of bleeding during the performance of that operation. It is a non-irritant to mucous membrane unless when used too frequently and in excess.

"On reading the literature on the subject," says the writer, "I find that Adrenalin is admitted to be the most powerful and rapid cardiac stimulant and tonic we have, being chiefly used in cardiac affections, haematemesis, hemoptysis, hemophilia, hematuria, menorrhagia, post-partum hemorrhage, purpura, scurvy, etc. It is said to be the most rapid restorative in chloroform and other forms of anæsthetic syncope, and in such cases it is advisable to administer it intravenously."

The author reports the results of several operations, major and minor, in which Adrenalin was employed. The first case was one of fracture of the vertex of the skull. As one of the larger branches of the middle meningeal artery had been torn there was profuse dural hemorrhage and capillary oozing which were controlled by the use of the 1-1000 solution. In the second case, one of hemorrhoids, profuse bleeding was checked by the rectal insertion of a plug of cotton wool soaked with Adrenalin Chloride Solution.

The third case was one of skin grafting in which the author tried pressure to stop the capillary bleeding. As the procedure was somewhat tedious he applied Adrenalin Chloride Solution with almost immediate cessation of all oozing, and what is usually a lengthy and sanguinary operation was converted into a short and comparatively bloodless one.

The fourth case, one of hemorrhage after the extraction of teeth, and the fifth, which appears to embrace the author's experience in a number of cases of epistaxis, afforded additional opportunity to test the hemostatic effect of Adrenalin.

In case VI. a post partum hemorrhage was checked by swabbing the uterine cavity with Adrenalin Solution, while the same happy result was obtained in a case of secondary hemorrhage following an operation for the relief of a mammary abscess.

The author has found that the instillation of a 1-5000 to 1-200 solution of this drug reduces the inflammation and considerably cuts short the process of conjunctivitis. He usually applies it (diluted) over the inflamed parts by means of a soft camel's hair brush. He always uses the preparation containing Chloretone, which has a decided local anesthetic action relieving much of the photophobia and pain. He is fully convinced of the power of Adrenalin to arrest or lessen the bleeding that arises from the cut ends of the iris after iridectomy. He speaks highly of its efficiency in chemosis, cataract operations, evisceration of the eyeball, operations for ectropion, symblepharon and trachomatous pannus.

The author concludes that in all cases of minor surgery in which it is desired to arrest bleeding from any cut or exposed surface we have in Adrenalin a most useful, powerful and rapid drug—one that is non-poisonous, non-irritant and non-accumulative especially in operations upon the conjunctiva and
—ids.

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EDITORIAL.

THE STUDIES COGNATE TO MEDICINE.

It is a real shame that so little attention is paid in this country to the studies cognate to medicine. It is a well-known fact that they have been made obligatory in Europe for many years back. Here they have been taken up, when they were, in a certain spirit of dilettantism. They were made amusements instead of serious studies, and like all such were soon dropped for what seemed to be other novelties. As a natural result of these constant changes, the serious study of cognate branches was dropped never to be again taken up or ever given the least attention. We have known physicians to take up some after years of practice and of the study of medicine, and it was then that they first realized what they had lost, and what opportunities had passed by never again to return. Among these studies botany is certainly entitled to hold a front rank. It is a most fascinating study, and to him who has the least inclination to pursue it, it possesses a fascination which nothing else can afford. One of the foremost botanists of the world was the late Dr. George

Engelmann, who had established a reputation for himself as an authority upon this subject. In addition to this he was a very successful practitioner of medicine in St. Louis. He made botany a specialty, and he achieved fame in this one of his favorite studies.

Another cognate study of more than ordinary interest to the physician is ethnology. This is also a study possessed of no ordinary interest, which is increased by the observations made in his travels. And he shall certainly travel directly he learns what fine opportunities are thus afforded to a student of ethnology. Those who have once begun such studies never abandon them, but continue to add to the sum total of their knowledge of the subject. And it is not only manners and customs which engross his attention, but language becomes equally concerned in the matter, and philology naturally comes in for some share of attention. This adds more interest to the original subject, and naturally leads to small side-excursions in pursuit of certain allied subjects which are themselves full of interest and information.

It will naturally lead to a study of anthropology, and this will lead the student back to prehistoric times, and a study of paleolithic and neolithic man as shown by the few scattered remains which exist to-day. The stone age has made some very interesting as well as strange contributions to anthropology, and has enabled us to draw conclusions in regard to the manners and customs of man at this period. Not only this, but the degree of civilization attained by him is presented to the observer and searcher after truth. Contemporaneous anthropology adds another study to itself in a critical consideration of anthropoid apes, those strange creatures who so closely simulate man in his acts. This is a study closely connected with anthropology and also opens a vast and fertile field for research.

In studying man in the Glacial Epoch and at subsequent periods we are confronted with problems in archeology. As will be seen from Dr. Ashmead's study of man in the Quaternary Period, in the preceding and present number of the JOURNAL, many interesting facts and questions are presented to the reader. Whilst archeological data are still sparse, they are daily increasing in number, and their critical investigations by those

competent to pursue them are daily adding to our sum total of knowledge. And, it is not only in a pure scientific sense that we are learning but in a medical sense as well. The age of syphilis, of leprosy, and of other diseases is being more accurately determined by archeologists who confess that they have but really began their labors along these lines. Thus, it may be seen from this short and hasty sketch, that studies cognate to medicine are not only deserving of attention and study but offer great opportunities in the way of arousing interest and furnishing instruction.

THE COCAINE HABIT.

There is no doubt of the fact that the cocaine habit has attained great proportions in this country. The alkaloid of the coca of Peru is derived chiefly from the so-called "sweet" leaves, the bitter which contain aromatics being poor in the alkaloid. The *Medical Press and Circular* has stated (see this JOURNAL, vol. LXXV., page 276) that "it may be that the popularity of so-called medicated wines containing coca or cocaine is responsible for the habit." It concludes: "It may be stated—that neither coca nor its alkaloid, cocaine, has any legitimate application in internal therapeutics, and a grave responsibility is incurred by those who recklessly and unnecessarily counsel their use," all of which is a piece of Pecksniffianism to which no one will pay attention. Of course, we must distinguish between true wine of coca and spurious imitations made with cocaine as an ingredient. A true wine of coca like Vin Mariani will never engender the cocaine habit because it does not contain the alkaloid. The following extracts from Mariani's *Coca Leaf* (Oct., 1903), we hope will set at rest many false impressions which have been formed in regard to coca:

"COCAINE IS NOT COCA.—But as in all wrongs the tide of reform is apt to sweep over the good as well as the evil, so in this case cocaine addiction has been so sensationally presented that it has overshadowed the true in order to suppress the false. The impression has been created among certain physicians—who should be better informed—that coca is synonymous with cocaine and that all Coca wines are but simple admixtures of cocaine with wine, designed to pamper to a degraded appetite.

Indeed, one recent work on *Materia Medica* states that 'coca wine was formerly made from coca leaves but is now but a mixture of cocaine with cheap claret.' In thus classing the true with the utterly false, Vin Mariani has at times been condemned under the supposition that it, too, is a preparation depending for its properties on the presence of cocaine.

"These inaccuracies do not necessitate that we take upon ourselves the defense of Coca, yet we cannot but feel annoyed at the false impressions and misstatements that reflect upon the integrity of our own preparation."

"A TRUE WINE OF COCA.—The facts are that Vin Mariani is an expensively prepared and carefully compounded pharmaceutical preparation, made by a skillful and conscientious manufacturer. It presents the aromatic and desirable properties of true Coca leaves as employed among the Andeans, who for hundreds of years have used a Coca in which cocaine is an unconsidered constituent. Careful research has proven that no harmful results are engendered among the Andeans, whose custom it is to chew Coca daily from infancy to old age. It is thus used by them not because of an acquired habit, not for any debasing influences, but experience has proven that the necessities of their environment are only overcome under the use of Coca, and such stimulation as this tonic affords is wholly free from all ill after-effects. The laborers among these people use an average of two ounces of the leaves daily, an amount given them as a ration with far more exactitude than any other food or wage."

"A FEW COCA FACTS.—In view of many false impressions and certain prejudices which obtain because of the present legislation against cocaine, we feel it advisable to submit to our friends of the medical profession the following facts for consideration:

"The natives who daily use Coca are not satisfied with cocaine which, being of less bulk, might well be considered an advantageous form to employ the substance if it were identical. But the effects of cocaine are not identical with Coca, and are often diametrically opposite. Chemical research has demonstrated that there are a number of alkaloids in Coca leaves besides cocaine. Physiologists have shown that it is because of the presence of these associate bodies that the action of Coca dif-

fers so materially from but one of its constituents—cocaine. Similar examples are presented in caffeine and in coffee, in opium and morphine, and in many other substances, the alkaloids of which present properties quite distinct from their parent body.”

After this true presentation of facts we are certain that none of our readers will hesitate to recommend Vin Mariani, as we have done on numerous occasions with none but the happiest results. Whilst cocaine addiction is deplorable in the highest degree it must not be confounded with the use of Coca, which depends for its stimulating properties more upon the aromatics which it contains, than the very small quantity of Coca. Cocaine is a chemical product, an alkaloid recovered with difficulty from certain varieties of coca leaves which are never used in the manufacture of Vin Mariani.

Mississippi Valley Medical Association.—The thirtieth annual meeting of the Mississippi Valley Medical Association will be held at Cincinnati, O., Oct. 11, 12, 13, 1904. Dr. B. Merrill Ricketts has been elected chairman of the Committee of Arrangements.

The following resolution was offered by Dr. S. P. Collings of Hot Springs, Ark., at the Memphis meeting:

WHEREAS, The value of perfect sight and hearing is not fully appreciated by educators, and neglect of the delicate organs of vision and hearing often leads to disease of these structures, therefore; be it

Resolved, That it is the sense of the Mississippi Valley Medical Association that measures be taken by Boards of Health, Boards of Education and School authorities, and, where possible, legislation secured looking to the examination of the eyes of all school children, that disease in its incipency may be discovered and corrected.

MELANGE.

The Enno Sander Prize.—The essayist securing first place will receive a gold medal of the value of \$100.00. The essayist securing second place will receive a life membership in the Association of the value of \$50.00. Subject of the competition for 1904: "The Relation of the Medical Department to the Health of Armies."

Conditions of the Competition.—1. Competition is open to all persons eligible to Active or Associate Membership in the Association of Military Surgeons of the United States.

2. The prize will be awarded upon the recommendation of a Board of Award selected by the Executive Committee. The Board will determine upon the essay to which the prize shall be awarded, and will also recommend such of the other papers submitted as it may see fit for honorable mention, the author of the first of which shall receive a life membership in the Association,

3. In fixing the precedence of the essays submitted, the Board will take into consideration — primarily — originality, comprehensiveness, and the practicability and utility of the opinions advanced; and—secondarily—literary character.

4. Essays will consist of not less than ten thousand nor more than twelve thousand words exclusive of tables.

5. Each competitor will send three typewritten copies of his essay in a sealed envelope to the Secretary of the Association, so as to reach that officer *at least one month before the next ensuing annual meeting*—in the present case on or before September 10, 1904.

6. The essay shall contain nothing to indicate the identity of the author. Each one, however, will be authenticated by a *nom de plume*, a copy of which shall, at the same time as the essay, be transmitted to the Secretary in a sealed envelope, together with the author's name, rank and address.

7. The envelope containing the name of the successful competitor will be publicly opened at the next succeeding annual meeting of the Association, and the prize thereupon awarded.

8. The successful essay becomes the property of the Associ-

ation of Military Surgeons of the United States, and will appear in its publications.

Board of Award, 1904—Lieutenant-Colonel John Shaw Billings, U. S. Army; Brevet Brigadier-General George Ryerson Fowler, New York; Surgeon Henry Gustav Beyer, U. S. Navy.

JOHN CROPPER WISE, President.

JAMES EVELYN PILCHER, Secretary,
Carlisle, Pa.

Prevention of Tetanus.—At the 29th Annual Session of the Mississippi Valley Medical Association held at Memphis, October 7-9, the following resolutions were adopted:

In view of the fact that more than 400 deaths from tetanus occurred following the 4th of July celebration of 1903, as shown by the statistical report elaborated by Dr. S. C. Stanton of Chicago, and published in the *Journal of the American Medical Association* of August 29, 1903, the great majority of which might have been prevented had proper precautions been taken; therefore

Be it Resolved, That the conclusions which follow, as offered by Dr. Stanton, in a paper presented before the Association at the above meeting, be endorsed as the sense of the Association, and further

Be it Resolved, That the Secretary be instructed to forward a copy of these resolutions and conclusions to the medical press, associated press and the secretaries of the several state medical societies, with request that they publish the same and take suitable action thereon.

1. Enforcement of existing laws regarding the sale of toy pistols and other dangerous toys.

2. Enactment of laws by the nation, states and municipalities prohibiting the manufacture and sale of toy pistols, blank cartridges, dynamite canes and caps, cannon crackers, etc.

3. Open treatment of all wounds, however, insignificant, in which from the nature or environment there is any risk of tetanus.

4. Immediate use of tetanus antitoxin in all cases of Fourth of July wounds, or wounds received in barnyards, gardens, or other places where tetanus infection is likely to occur.

5. As a forlorn hope, the injection of tetanus antitoxin after tetanus symptoms have appeared.

BOOK REVIEWS.

International Clinics. A Quarterly of Illustrated Clinical Lectures, and especially prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. KELLY, A.M., M.D., with the Collaboration of WM. OSLER, M.D., JOHN H. MUSSER, M.D., J. B. MURPHY, M.D., JAS. STEWART, M.D., A. MCPHADRAN, M.D., THOS. M. ROTCH, M. D., JOHN G. CLARK, M. D., JAMES J. WALSH, M.D., J. W. BALLANTYNE, M.D., JOHN HAROLD, M.D., EDMUND LANDOLT, M. D., RICHARD KRETZ, A.M. With Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Liepsic, Brussels and Carlsbad. Vol. III, Thirteenth Series, 1903. 8vo. pp. 305. Illustrated. [Philadelphia: J. B. Lippincott & Co. 1903. Price, cloth, \$2.00; half-leather, \$2.50. Each series consists of four volumes.

This latest volume of *International Clinics* is certainly a very superior one. The six opening articles on diseases of the Gall-Bladder and Gall-Ducts are particularly good and of a valuable nature. They form a veritable symposium of a nature which is high class in every respect. Dr. John H. Musser begins with a consideration of Some Medical Aspects of the Diseases of the Gall-Bladder and Gall-Ducts. Dr. R. D. Rudolph follows with a description of The Causation, Symptoms and Diagnosis of Gall-Stones, which is well written and full of the best information for the guidance of those who desire to perfect themselves on this subject. The Diagnosis and medical Treatment of Cholelithiasis by Dr. Charles G. Stockton is very timely in that it points to other efficient means which are not surgical.

Dr. F. Parkes Weber contributes an excellent pathological paper on Biliary Cirrhosis of the Liver, with and without Cholelithiasis. The Value of and Indications for Surgical Intervention in Cholelithiasis by Dr. F. Lejars is a well considered contribution to this very important subject. It is full of surgical hints of more than ordinary value. Dr. John B. Deaver gives the concluding paper of this symposium, his subject being The Surgical and Post-Operative Treatment of Chronic Gall-Stone Disease. That this contribution is of a superior nature goes without saying in view of who the author is.

Dr. David W. Finlay speaks of the Treatment of Pneumonia, and in this paper he demonstrates his great capacity as a teacher of medicine. The Medical Treatment of Gastric Cancer

by Dr. Albert Robin; Carbonic Acid Treatment in Rectal Diseases by Dr. Achilles Rose; and the Serum Treatment of Typhoid Fever by Dr. A. Chantemesse are all good contributions coming under the head of treatment and each one is capable of being utilized by the general practitioner with the greatest advantage to himself and to his patients.

The department of medicine contains a particularly interesting article by Dr. Charles F. Craig. It is on Malarial Infections—their Parasitology, Symptomatology, Diagnosis and Treatment. Mr. R. Murray Leslie treats us to a description of the Clinical Types of Pneumonia, with Special Reference to Aberrant Forms. Dr. Thomas J. Mays writes on a subject of more than ordinary interest and importance and, which has been often observed without being clearly understood by otherwise intelligent members of the medical profession. It is Sudden Death due to Respiratory Disorder. Dr. J. S. Fowler devotes an article to a case of more than ordinary interest. It is On the Occurrence of a form of Leukemia intermediate in Type between the Lymphatic and the Spleno-medullary Forms, with Notes of a Case in a Child of Five Years. This is a finished study and will repay careful study. Dr. F. J. Poynton gives clinical evidence of Myocardial Damage in Rheumatic Fever.

In the part devoted to Surgery we find six excellent articles: They are: Cocaine anesthesia, with Illustrative Case—Operation for Varicocele by Dr. J. A. Bodine; General Anesthesia by Dr. John A. Lewis; Asepsis and Antisepsis by Professor Lucas-Champiomitre; Gastrostomy; Concussion of the Brain by Dr. William L. Rodman; Intrascrotal Tumors by Dr. William T. Belfield; and The Modern Treatment of Varicose Veins by Dr. C. E. Schwartz. All of these articles are of a superior order.

The entire volume is well written and it is a well printed book which is finely illustrated. There are a number of Colored Plates, others in monochrome, and a number of figures. Altogether the book is superior in mechanical execution, as well as in the character of its contents. Dr. A. O. J. Kelley, the new editor, has made a complete change for the better in this publication, and he has surrounded himself with a corps of collaborators of superior ability. The publishers have certainly met him more than half way in producing the splendid result before us.

Practical Gynecology. A Comprehensive Text-book for Students and Physicians. By E. E. MONTGOMERY, M.D., LL.D. Second Revised Edition. 8vo. pp. 900. With Five Hundred and Thirty-nine Illustrations, the greatest number of which have been Drawn and Engraved specially for this Work, for the most part from Original Sources. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$3.00 net.

A second edition of this magnificent work is before us, just three years after the appearance of the first one, and upon critical examination we find it to be so revised and recast that it is practically a new book. The author tells us that he had this text-book fifteen years under consideration before it made its first appearance, and we then expressed the opinion that it was as good as could be made. Since it has appeared he has found room for many improvements and to-day he presents them to us. Ever bearing in mind the benefit to the student, he has made many changes in the arrangement of the work, and in the process of rewriting many portions, some seventy pages were added. Among the changes made in this edition we note that malformations are confined to congenital conditions, while the lesions of parturition are correctly treated of under the subject of traumatisms. Genital tumors formerly considered in one division are considered in a different manner, as the division has been changed in the consideration of myomata and malignant growths. The later operative procedures have been treated in closer detail, this necessitating rewriting and adding to this part of the subject. The object of the author in doing this has been to increase the usefulness of his work to students and in this manner render them more capable of practicing their profession in a proper manner after graduation.

As we have had to remark on a former occasion in reviewing this work, the author has made his chapter on diagnosis one which is not only very full but written in a manner to instruct students in a proper manner. All the methods are accurately described, and methods placed in the reach of physicians which are not only valuable but calculated to render a diagnosis more thorough and perfect. As the author very properly states, in the study of physical signs, all the senses, except that of taste, are employed. The subjects of embryology, anatomy and physiology are thoroughly developed, and illustrated very thoroughly by competent artists. These chapters are thoroughly written and contain an account of the latest advances up to date, and are complete and thorough. That portion descriptive of the hymen is particularly instructive and contains descriptions of all the known varieties, each one being well illustrated. A subject which receives considerable attention and one which has not been sufficiently noticed, or received the notice which it deserves in works on gynecology, is that of malformations. In the work before us this receives the notice which properly appertains to it, and this is but proper as it tends to greatly simplify treatment both medical and surgical and prevents mistaken diagnosis, under the misapprehension that a deformity is a disease.

Traumatisms and inflammations occupy different chapters, and in the latter the methods of diagnosis which are given are

most excellent. This very thing of diagnosis has been made a leading feature of the book and it is only excelled by the very exact descriptions of the methods of carrying out operative procedures. In this last the author demonstrates to us very thoroughly that he is a master of gynecologic surgery. And withal the author has avoided being complicated.

Deviations of the pelvic organs and genito-urinary hemorrhage and ectopic gestation form two more than ordinarily excellent chapters. The author has made ectopic gestation a very valuable contribution and it is illustrated in both a thorough and good manner. Extra-uterine pregnancy receives that attention which it deserves. It is, however, upon the subject of tumors that the greatest amount has been written by the author. He takes up successively, genital tumors, tumors of the vulva, of the vagina, and of the bladder. Those of the vagina, of the uterus, and of the fallopian tubes and broad ligaments receive their fair share of attention, but it is when speaking of ovarian tumors that the author deals completely with his subject and gives us a very full treatment of the subject.

The list of authors quoted and index occupy forty-four double-column pages, which is certainly an indication of the contents and of the complete manner in which the subject of gynecology has been covered. The publishers have produced the volume in a manner which is adequate to its contents, and we are certain that with all the improvements both literary and mechanical which this edition presents, it will not be long before a new one will be called for by the medical profession.

The Practice of Obstetrics. Designed for the Use of Students and Practitioners of Medicine. By J. CLIFTON EDGAR. Imperial 8vo. pp. 1111. With 1221 illustrations, many of which are printed in colors. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, cloth, \$6.00; sheep or half-morocco, \$7.00, net.]

This, the latest move on obstetrics, is without doubt the best text-book on the subject which has been issued in America. It is quite a large book but this is due to the fact that the author has been very thorough in his treatment of the subject. This text-book has been prepared with more than usual care, and evidence of the pains taken in its preparation is given upon every page. The author has had an extensive experience both in hospital and in private practice and he has been a teacher for many years. His cosmopolitan experience and his extensive knowledge of both literature and methods have made him particularly fit to write a text-book which an examination of the one before us will show is adopted to the needs of both students and practitioners of medicine. Add to this his excellent judgement and it can be matter of small sur-

prise that he has produced such an excellent treatise. We have carefully examined the text and illustrations and find that the work fills all requirements and the most captious critic would be forced to acknowledge that there is nothing lacking in this truly master work on a most important subject.

The illustrations in this book are particularly noteworthy. They are numerous and nearly all original. The author exercised great care in their selection and they have all been so placed as to catch the eye whenever the text refers to them. Another feature in connection with these is that their size has been made to correspond to the importance of the subject pictured. In other words, relative importance has determined the selection, size, and character of each figure. The drawings have all been made with the greatest care by competent artists, and whatever half-tones are introduced are excellently well made. In fact, uniformity and consistency have always been kept in view and this is also a characteristic of the text. Nothing of importance has been omitted and the relative value of each subject has been duly considered and carefully planned out by the author. We find evidence of this throughout the work and this is shown throughout the text in a manner not shown by the other text-books which we have had an opportunity of examining. The book before us will not only compare most favorably with the best on the subject, but, critical examination will show that it is entitled to the first place and it will be accepted everywhere as a standard work, a position which it is eminently entitled to hold. It will also be found to be the most useful of all as well as one which is eminently scientific and practical.

The contents of this volume are divided into ten parts. Part I. is on the Physiology of the Female Genital Organs and contains 35 illustrations. Part II. on Physiological Pregnancy contains 198 illustrations. Part III. on Pathological Pregnancy contains 267 illustrations. Part IV. is on Physiological Labor and contains 134 illustrations. Part V. on Pathological Labor, contains 260 illustrations and divided into two sections; the first on Fatal Hysteria, and the second on Material Hysteria. Part VI. on the Physiological Puerperium, contains 18 illustrations. Part VII. on the Pathological Puerperium, 51 illustrations. Part VIII. is on the Physiology of the Newly Born and contains 15 illustrations. The Pathology of the Newly Born is considered in Part IX. and contains 32 illustrations. Part X. on Obstetric Surgery contains 206 illustrations and is one of the most important chapters in the book. An Appendix on Private History Records and Institutional Records closes the volume. An idea of the scope of this work may be gained from the above short description of the contents and it will also give an indication of the thorough-

ness with which the entire subject is discussed. A further indication of the vast amount of material which enters into its pages may be gained from the fact that the index takes 47 double column pages.

The publishers have made a handsome volume of this book. The printing is both excellent and clear, the illustrations very well made, and the paper is of extra quality and weight. The binding is both strong and elegant. As a superior work on obstetrics it stands to-day without a peer and we feel certain that the Cornell Professor of Obstetrics will see it pass through the many editions as it certainly deserves to on account of its superior merits.

Clinical Pathology of the Blood. A Treatise on the General Principles and Special Applications of Hematology. By JAMES EWING, A.M., M.D. Second Edition, Revised and Enlarged. 8vo. pp. 495. Illustrated with Forty-three Engravings and Eighteen Colored Plates, drawn by the Author. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$3.50 net.

This superior work on hematology sprang into popular favor with the medical profession directly after it was written. In all those medical colleges in which hematology is taught the book before us has been recommended for a text-book, and no better one could have been chosen. And its popularity has been proven by the fact that in the short space of two years the first edition was exhausted, necessitating the issue of the present second one. And the author has certainly made it a very superior text-book on the subject, as well as a reliable guide for all those who desire to enter upon the work of blood examination. He has written everything in a clear, lucid and comprehensible manner, and he has incorporated in this way very clear directions as to the applying of the technique in a proper manner. In one word, he has made of it a reliable and clear guide, written in such a manner that anyone who is master of the elements of microscopy may go ahead and make competent examinations of blood, and correctly interpret the pictures which are presented to his view. He has eliminated the mysterious; he has rendered clear whatever seemed obscure; and he has produced a guide which every intelligent practitioner of medicine can use with advantage to himself.

The general arrangement of this book is the same that it was in the first edition. Thus Part I. is on General Physiology and Pathology, including enumeration of blood cells, adolescence, osmotic tension, etc. The chemistry of the blood, morphology of red blood cells, leucocytes, and development of blood cells, are also considered. In Part II. the Special Pathology of the blood is considered, this including leukemia and pseudoleu-

kemia. Part III. is devoted to a consideration of the Acute Infectious Diseases, this constituting a most valuable portion of the volume. Equally valuable is Part IV., on the blood in Constitutional Diseases. We note that syphilis and leprosy are included under the infectious diseases. Part V. includes chapters on General Diseases of the Viscera, including as it does malignant tumors, such as carcinoma and sarcoma. Part VI. is a very interesting one, as it deals with the animal parasites found in the blood. Malaria occupies an important chapter in this, as also relapsing fever. Miscellaneous parasitic diseases, such as trichina spiralis, distoma hematobium, filariasis, and some others, are properly noted in the concluding chapter.

Among the additions which have been made in the revision a number are to be noted which have caused the addition of a large number of pages. A number of additions have been made to the chapter on Technics, the serum test for blood, and the subject of crioscopy. These additions are of much value, and are among the latest discoveries made in hematology. The discussion of the morphology of blood cells has been added to and enlarged, and a new plate added. Leukemia has had quite some additions made, which are all noteworthy and good. The essential features of Ehrlich's theories on immunity are presented, but lack of space has prevented the author from indulging in a full discussion of the subject. The careful reader and student will note the additions and revisions which have been made throughout the work. Among the additions may be noted four plates and a number of illustrations.

A feature of this edition, as it has been of the first, is the very full bibliography added to each chapter. It is not only compendious, but it is thorough as well, thus giving the reader an opportunity of referring to the original source, if he has any particular subject which is referred to in the text. The publishers have made a handsome, well-printed volume of this work, and, despite the additions which have been made, they have not raised its price. There is no doubt whatever, in our opinion, that as the book becomes better known future editions will become more frequent, and it certainly is deserving of them.

Maladies des Pays Chauds. Manuel de Pathologie Exotique. Par PATRICK MANSON. Traduit de l'Anglais par MAURICE GUIBAUD et JEAN BRENGUES, et augmenté de Notes, et d'un Appendice par M. GUIBAUD. 8vo. 776 pages, Avec 114 Illustrations et 2 Planches en couleurs. [Paris: C. Naud, 3 rue Racine. 1904. Prix, 12 francs.

DISEASES OF HOT CLIMATES. A Manual of Exotic Pathology. By PATRICK MANSON. Translated by MAURICE GUIBAUD

and JEAN BRENGUES. 8vo. pp. 776. With 114 Illustrations and 2 Colored Plates. [Paris: C. Naud, 3 rue Racine. 1904. Price, 12 francs.

Manson's work on Diseases of Tropical Climates has been a classic for many years, and it has sustained its well-earned reputation. It has been an authority among the members of the English medical profession, and deservedly. The last edition of this work published in English appeared in 1900, and the translation before us has been made from it, but with considerable additions, covering the advances and discoveries made from that time up to date. This review certainly enhances the value of the work, more especially when the fact is taken into consideration that they were made by writers who are experienced and competent in the subject of tropical disease. The importance of such a work cannot be gainsaid, in view of the fact that all, or nearly all, civilized countries have colonies located within the tropical zone. This country has acquired quite a number of possessions so located, and it now behooves the members of our profession located in such countries to acquire as thorough a knowledge as possible of the diseases indigenous to those countries, in order to be properly qualified to practice medicine and surgery among the inhabitants in a proper and effective manner.

It is almost unnecessary to give more than a short outline of the book before us. After an introduction on the etiology of tropical diseases, the author disposes of the subject in seven sections. In Section I, he discusses fevers, in which are included some never observed in temperate zones. Section II. includes beri-beri, epidemic dropsy, and the sleeping disease. In Section III. we find a consideration of abdominal diseases. Section IV. is of great interest, including as it does leprosy, piam, verruga of Peru, and aleppo boil. Section V. includes animal parasites and associated diseases, together with intestinal parasites. Section VI. is a very important one, as it includes skin diseases. These are nearly all unknown north of the tropics as well as south, and so constitutes a more than ordinarily interesting chapter in themselves. Section VII. includes local diseases of a nature not determined. These are climatic bubo, joundon, or anaklave, and arnhum. There is an appendix added by the translator, and this consists of notes on malaria, on the bubonic plague, on dysentery, and on the abscess of the liver. The 33 pages occupied by these notes are replete with interesting data and information, and we are sorry that there is not more included under this head.

The book does not pretend to be a treatise on the subject whereof it treats, but rather a handbook for the guidance of those who may need a manual on diseases of the tropics. We find it comprehensive and full of valuable information for those

in whose interest it has been written, and even physicians who do not intend going to the tropics will find much to interest them as well as prove of profit. The illustrations which are given are excellent and well made. The two colored plates are very much above the average of such. The book is printed on very excellent paper, and the print is clear and good. In fact, the book is superior in every respect. We can heartily endorse this work, and do not hesitate to recommend it to all who can read and understand French. The translation is a very good one, and demonstrates the fact that the gentlemen who have turned this work of Manson into French are masters of both languages.

The Practice of Medicine. A Text-Book for Practitioners and Students, with Special Reference to Diagnosis and Treatment. By JAMES TYSON, M.D. Third Edition, Thoroughly Revised and in Parts Rewritten. Royal 8vo. pp. 1239. With 134 Illustrations, including Colored Plates. [Philadelphia: P. Blackiston's Son & Co. 1903. Price, cloth, \$5.50 net.

The popularity of this work on the practice of medicine is attested to by the fact that we have its third edition before us, the first one having appeared in 1896. In the present one, which has been considerably augmented, the reader will find that nearly every chapter had been recast and every effort made to bring the reading matter up to the latest discoveries. The work is a large one and the author's endeavors to make it complete have met with quite a degree of success and yet he has omitted a mention of some diseases among which may be noted hemato-chyluria which, in our experience, is not an exclusively tropical disease from the fact of having observed it in St. Louis. As this trouble is accompanied by the *Filaria* of Manton, it is but natural to expect a consideration of it in connection with chyluria.

The book before us is divided into fourteen sections. Section I., which has been entirely rewritten, on account of its importance, is concerned with Infectious Diseases. Much care has been devoted to this in the revision and justly so in view of the fact that so much progress has been made in the study of these diseases in late years. Section II. deals with Diseases of the Digestive System, and here also may be observed the thoroughness of the author in his manner of dealing with the subject. In Section III. the author fully considers Diseases of the Respiratory System, this being naturally followed by those of the Heart and Blood Vessels in the next section. Section V. gives a full review of the Blood and Blood making organs. The Thyroid Gland is quite thoroughly considered in Section VI.; and, as might be expected, quite a complete chapter on the Urinary Organs forms the subject of Section

VII. A deservedly long section is that numbered VIII. It is a thorough and well considered account of Constitutional Diseases, including Rheumatism, Gout, Purpura, etc. Diseases of the Nervous System, of the Muscular System, and Intoxications occupy successive sections. Section XII. gives the results of Exposure to High though Bearable Temperature, and this will be found not only an interesting but a useful chapter. The next section is devoted to Animal Parasites, both internal and external. It is fully illustrated and receives the same thorough treatment that other sections receive. Section XIV. which closes the volume is on the Symptoms following Overdoses of Poisons, and the Treatment of the Effects produced. This is a complete exposition of toxicology so far as the practitioner of medicine may need it. It is practical and easily learned and cannot fail of providing good results.

The present volume is a great improvement upon the previous edition and its thoroughness will recommend it to those in need of such a work, who desire one of a superior character. The publishers have made a handsome volume of it, and we can cheerfully recommend it to our readers.

A Treatise on Orthopedic Surgery. By ROYAL WHITMAN, M.D. Second Edition, Revised and Enlarged. 8vo. pp. 848. Illustrated with 507 Engravings. [Philadelphia and New York: Lea Brothers & Co. 1903. Price \$5.50, net.

Orthopedic Surgery is one of the branches of surgery which has made enormous strides in the past few years. A large number of the most competent members of the profession have devoted themselves exclusively to this branch, and it has risen from being entirely in the hands of the maker of braces to the more dignified position of a specialty of the highest importance and surrounded with difficulties of the most difficult sort to overcome. As a natural result of this evolution, the orthopedic surgeon no longer employs the comparatively uncouth methods of the surgeons of long ago, but applies his knowledge of mechanics and kinetics to the greatest advantage, and the natural result is that the best of results are obtained, and such as are of a permanent character. Orthopedics is a recognized branch of surgery throughout the civilized world, and is still being made a constant study by those who exclusively devote their attention to it. One peculiarity in connection with this particular branch which is observable is that every orthopedic surgeon is enthusiastic over it, and, in addition, he will exercise the greatest patience imaginable to obtain a successful result. As a corollary to this, we may observe that the successful results obtained will compare favorably with the best obtained in any other branch of the healing art, especially those of a surgical character.

The book before us is the latest and probably the best on the subject recently published. It exemplifies in a superior manner the advance made in recent years in the way of the prevention of deformity, this having been made possible by the acquirement of a more thorough understanding of the cause of these deformities, both predisposing and exciting. It naturally becomes an important matter to recognize these deformities in their incipency, and this the author has enabled the general practitioner to do, both by his descriptions and by giving clear directions in regard to methods of examination. This latter means enables him to recognize disease or disability in its incipency, and thus afford an opportunity to institute timely treatment; This latter naturally tends to a consideration of the principles of treatment, which latter he describes in detail as derived from his personal experience. We will not burden our readers with a review of the contents of this book, but will remain satisfied with the statement that it is both thorough and complete, two facts which will immediately recommend it to students and practitioners, as well as to teachers of orthopedic surgery, and to orthopedic surgeons in general. In this work he has included many valuable statistics, and he has made additions of much value. These consist in great part of an extensive description of certain conditions and the addition of some sixty new illustrations. These additions, in connection with the thorough revision which it has undergone, have certainly made the book not only more complete, but have added to its value in a considerable degree and placed it in that class where it becomes authoritative,

The book has been deservedly popular, and the fact that it has retained the characteristics of the first, has been enlarged, and its price remains the same, will certainly lead to a still wider usage of it. The author's method has been largely objective, and to carry this out has necessitated the use of a large number of illustrations. These are mostly original, and chosen with rare discrimination. In fact, he has made his pictures demonstrate his teachings in a manner which no other method could equal. He has done his work well, and we can safely predict a larger success for the second edition than the first one enjoyed.

The publishers have ably seconded the author's efforts, and the result has been the production of a fine book, printed on extra paper, in the well-known style of the Lea Brothers, which is equivalent to saying that it is unexceptional. The binding is superior, with beveled edges to the covers, and altogether it is a magnificent example of the book-makers art.

Text-Book of Diseases of the Eye. For Students and Practitioners of Medicine. By HOWARD F. HANSELL, A.M., M.D.,

and WILLIAM M. SWEET, M.D. With Chapters by CHRISTIAN R. HOLMES, M.D., CAREY S. WOOD, M.D., D.C.L., and WENDELL REBER, M.D. With 256 Illustrations, including Colored Plates. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$4.00 net.

There are many text-books devoted to diseases of the eye, but the majority of them do not meet the requirements of students. One which does this and is well written is certain to become popular. This is the future which we can safely predict for the book before us. The authors have made it a point to write a book for under-graduates and years of teaching has taught them the needs of these, and they have gone to work to supply them. Having been taught by their experience as teachers that students experience much difficulty in acquiring a knowledge of a superficial nature of the diseases of the eye, they have treated briefly the purely scientific and theoretic subdivisions of the subject. They have made it a point, on the other hand, to emphasize the common affections and traumatismes. They very justly imply that to acquire a general knowledge of the eye and its diseases, and to become an oculist as two very different as well as distinct matters.

In carrying out this plan the authors have devoted but small space to refraction, as this more properly enters into advanced ophthalmology. The rarer external diseases of the eye, and affections of the posterior segment of the ball which have not proved amenable to treatment, have been allotted no space, and very properly so.

This book is particularly good in its description of methods of examination, both direct and by means of the ophthalmoscope. The authors are very particular in this matter, and very justly so. The various appearances of diseased conditions of the eyes and lids are well illustrated by original pictures from photographs, and the methods of performing operations are clearly described and figured.

Dr. Christian R. Holmes contributes special chapters on "Diseases of the Lacrimal Apparatus, Orbit and Cavities Accessory to the Orbit;" Dr. Carey A. Wood speaks of "Ocular Symptoms in General Disease," making this a very interesting chapter; and Dr. Wendell Reber contributes a chapter on the "Pupil in Health and Disease." These contributions are well written and cannot but help the student in his study of the principles of ophthalmology. Viewed from a general standpoint this book is of a superior order and will be gladly taken up both by students and by teachers of diseases of the eyes.

The publishers have made a handsome book of this volume and the mass of original illustrations will certainly recommend it to oculists, not to mention general practitioners. It is handsomely bound and printed on good paper.

Mammalian Anatomy with Special Reference to the Cat.

By ALVIN DAVIDSON, Ph.D. 12mo pp. 250. With one hundred illustrations made by W. H. REESE, A.M., from the Author's Dissections. [Philadelphia: P. Blakiston's Son & Co. 1903. Price \$1.50 net.

This is a valuable book to the student of anatomy. As is well known to all of our readers, a study of comparative anatomy does much to render that of human anatomy more thorough and satisfactory. It is for this reason that the more advanced teachers of anatomy in these latter days devote a good share of their attention to mammalian anatomy and the result is a more thorough appreciation of the subject on the part of the students. The author of the book before us has made a special reference to the cat because it is more easily procured than any other animal and, in addition, it offers many advantages for a proper study of the subject.

We have been much pleased with this book after a critical examination of its contents. In fact, it is a superior work in spite of its small size, and, although it does not aspire to the dignity of a treatise it contains all the essential points in connection with the subject of which it treats. The usefulness of the book is enhanced by a number of well considered questions, at the end of each chapter. Altogether it is well constructed and will easily recommend itself to teachers and students alike. The former will find the task of teaching much lightened and the latter, by its help, will be enabled to acquire a good working knowledge of the subject with an outlay of very little work and study. It is a book which deserves to be recommended and it will no doubt, act as the introduction to others on mammalian anatomy. As an introductory study to morphology it is most excellent.

The publishers have made a handsome little book of it and have well reproduced the excellent drawings of Mr. W. H. Reese. The volume is well printed on good paper and deserves a large sale.

Transactions of the American Ophthalmological Society. Thirty-Ninth Annual Meeting, Washington, D.C. 1903. Vol. X. Part I. 8vo. pp. 196. [Hartford: Published by the Society. 1903.

As usual the Transactions are of a superior quality and contain a number of papers written by the leading specialists in eye diseases in the United States. Among the more interesting papers are: The present status of subconjunctival injections in ophthalmic therapeutics by Dr. C. S. Bull. Case of pulsating exophthalmos of traumatic origin; ligation of the common carotid; recovery; by Dr. C. S. Bull. Hypertrophy and degeneration

ation of the meibomian glands by Dr. H. Knapp. Dr. Percy Fridenberg writes on orbital-osteoma of ethmoidal origin. The paper of Dr. H. D. Bruns is on diseases of the eye in the white and negro races. Dr. C. F. Clark relates the correction of sixteen diopeters of astigmatism by galvano-cautery. Tuberculosis of the eye and tuberculosis of the conjunctive are by Dr. J. A. Spalding and Edw. Jackson respectively. Dr. G. E. de Schweinitz reports a case of argyrosis of conjunctiva and lachrymal sac, following use of protargol. These form but a small proportion of the total of the papers in this volume but are an index of the general high character of the other ones. There are quite a number of excellent illustrations both colored and in monochrome, and in our opinion this forms the best part which has yet been issued by the Society.

Lessons on the Eye. For the use of Undergraduate Students.

By FRANK L. HENDERSON, M.D. Third edition, 12mo. pp. 205. Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1903.

The author has written this little book for students, and very popular it has become, as evidenced by the appearance of its third edition. He has not had the intention of writing a work on ophthalmology but rather a practical class-room companion. He has purposely omitted minute anatomy, the fitting, of glasses, kiascopy, ophthalmoscopy, and kindred subjects as they should form subjects for post-graduate instruction. He has divided his subject into twenty-eight lessons, or one lesson for each week of a seven months session. These lessons have been made rather short so as to enable the teacher to have more time to devote to quizzing.

As we remarked on a former occasion, this little book will prove a very valuable one for students and a good help to teachers. It contains that which a graduate should know and avoids a mention of those things which only a course of very good post-graduate study will furnish.

THE MEDICAL EPITOME SERIES:

Normal Histology. A Manual for Students and Practitioners.

By JOHN R. WATHAN, A.B., M.D. Series Edited by V. C. PEDERSEN, A. M., M. D. 12mo. pp. 229. Illustrated with One Hundred and Fourteen Engravings. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$1.00 net.

This small volume contains all the essentials of histology presented in an interesting manner by the author. It is fully illustrated with good engravings derived from the best works on the subject. The author has had considerable experience, as a teacher and this has enabled him to prepare a book, such as only one who is thoroughly acquainted with the needs of the

student can. The amount of matter which he has succeeded in condensing is surprising. This taken in connection with the well arranged questions occurring at the end of each chapter, make it of much value in connection with larger reference books.

The last chapter is especially valuable, as it is devoted to the technique of preparing and staining tissues preparatory to a microscopic examination. The practitioner will also find this epitome of much use to him as it is eminently fitted to refresh his memory, and whatever use he makes of it will be accompanied by the advantage of furnishing him with matter which is thoroughly up to date. We can unhesitatingly recommend this issue of Lea's Medical Epitome Series to both students and teachers.

LEA'S SERIES OF MEDICAL EPITOMES.

Anatomy. A Manual for Students and Practitioners. By HENRY E. HALE, A.M., M.D. Series edited by V. C. Pedersen, A.M., M.D. 12mo. pp. 389. Illustrated with Seventy-one Engravings. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$1.00.

This little book is one which will immediately recommend itself to anyone in need of a volume characterized by brevity, clearness and comprehensiveness. With this little hand-book, which can readily be placed in the pocket, the student may often refresh his mind under circumstances where "Gray" would be inadmissible. Not only students will find it of the highest value, but practitioners about to pass the examinations of State Boards of Health will note that it is the most useful remembrancer for them. The questions appended to each chapter are not the least important part of this book, and are so constructed as to give the most satisfaction in the smallest space consistent with the object desired. The author tells us in his preface that the foundation of this work was laid by the late Dr. Fred. J. Brockway, than whom no more enthusiastic anatomist ever wrote. His untimely death prevented the completion of the book he contemplated. Dr. Hale worked over, added to and rearranged Dr. Brockway's material. The result has been this high-class, well-illustrated book, which the publishers have brought out in unexceptional style.

A Manual of Bacteriology. By HERBERT U. WILLIAMS, M.D. Third Edition, Revised and Enlarged. 12mo. pp. 351. With Ninety-nine Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.75 net.

This edition of the popular book before us has been prepared on the same plan as the two preceding ones. The contents are divided into four parts, dealing respectively with

bacteriological technique, general principles, non-pathogenic bacteria, pathogenic bacteria, and an appendix on pathogenic protozon. We note that the author has noted the recent advances which have been made, a most necessary matter to be included in every new edition of a work on bacteriology. A short historical sketch has been inserted, and it is very interesting and apropos. The author has judiciously made a free use of references to original articles and reviews, and these he has endeavored to make to the most easily obtained publications. The illustrations are for the most part new, and they are sufficiently numerous to be demonstrative. The book will be found to be an excellent guide for undergraduates, and one of more than ordinary value for practitioners who desire to refresh their memories or who wish to obtain a clear idea of bacteriology. The part on bacteriological technique is particularly valuable and will be appreciated to the fullest extent by students and teachers. The book is a good one, and deservedly popular.

Transactions of the American Otological Society. Thirty-Sixth Annual Meeting, Washington, D. C., May 12 and 13, 1903. Vol. VIII., Part 2. 8vo. pp. 173-341. [New Bedford, Mass.: Printed by the Society. 1903.]

The present volume of Transactions of the American Otological Society is certainly one above the average of those issued for some years past. The papers read are not only interesting from a clinical point of view but valuable in so far as their pathological contents are concerned. Dr. Hermann Knapp reports a case of mastoiditis with features of osteomyelitis with complete recovery and unimpaired hearing. There are reports of two cases of cerebral abscess, with recovery; a case of abscess of the right cerebellar hemisphere with caries of the left mastoid process; abscess of the left tempora-sphenoidal lobe—operation, recovery, all of which are of the highest value and interest. Dr. Fred. Whiting describes the differential diagnosis of acute and chronic brain abscess by means of the encephaloscope. We could continue to give the titles of other papers, but those above form a good index of the work done by the members, and the large number of papers given is a very good showing for two days, the time during which the meeting is held. The Society can well afford to be proud of this volume of Transactions.

QUIZ COMPEND NO. 7.

Compend of Gynecology. By WILLIAM H. WELLS, M.D. Third Edition, Revised, Enlarged. 12mo. pp. 293. With 145 Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, 80 cents net.]

This little book is in reality more than is usually understood by

a compend. It is a condensed text-book on gynecology, adapted to the needs of the practitioner as well as to those of the student. The author has enlarged it in each successive edition, and presents us to-day with a good text-book at an extraordinarily low price. In this edition the author has very judiciously added a chapter on the general therapeutics of gynecology. The section of diseases of the urethra has been transferred to the chapter on diseases of the urethra, bladder and uterus! Throughout may be seen the evidences of a careful revision, and the increased size of the volume is evidence of the fact regarding the additions made. Several new operations have been described, and the idea of the author has been preserved of condensing the methods used by instructors of gynecology of this country. The author has well succeeded in doing this, and the publishers have presented the result in an elegant form.

Missouri Botanical Garden. Fourteenth Annual report. 8vo. pp. 316. Illustrated. [St. Louis: Published by the Board of Trustees. 1903.

This report is fully up to the high standard which has been set by Prof. Trelease since the inception of the annual publication of these valuable contributions to botany. In the present volume we find an important revision of the genus *Loricera*, by Mr. Alfred Rehder, of the Arnold Arboretum and this revision is thoroughly illustrated by twenty-three well executed plates in half-tone from photographs of actual specimens. This contribution will certainly be read with much interest by all who are interested in botany. There is also a catalogue, by Mr. C. E. Hutchings, of the additions which have been made to the Sturtevant Prelinncean Library of the garden, since the publication of the catalogue of the original collection, in the seventh report. It is certainly a most valuable bibliography and good evidence of the activity manifested by the manager of the garden.

Physicians' Pocket Account Book. By J. J. TAYLOR, M.D. [Philadelphia: The *Medical Council*. 1903. Price \$1.00.

The advantages of this account book as set forth by its author are as follows:

"Briefly, then, the advantages of this book are:—1st. Easily kept—requiring about one-fourth the time of other styles. 2nd. Simple and easily understood by all. 3rd. Always up to date without posting. 4th. Always with you to show anyone's account when he wishes to pay. 5th. Strictly legal and entirely admissible as evidence. 6th. No more expensive than other forms of books.

"The book contains Obstetric, Vaccination and Death Records and Cash Accounts. The book is $4\frac{1}{4} \times 6\frac{3}{4}$ inches, containing over 200 pages."

LITERARY NOTES.

Books Received.—The following books were received during the past month, and are reviewed in the present number of the JOURNAL:

Physicians' Pocket Account Book. By J. J. Taylor, M.D. [Philadelphia: The Medical Council. 1903. Price, \$1.00.

Missouri Botanical Garden. Fourteenth Annual Report. 8vo. pp. 316. Illustrated [St. Louis: Published by the Board of Trustees. 1903.

Lessons on the Eye. For the Use of Undergraduate Students. By Frank L. Henderson, M.D. 12mo. pp. 205. Third Edition. Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1903.

Transactions of the American Ophthalmological Society. Thirty-ninth Annual Meeting, Washington, D. C., 1903. Vol. X. Part 1. 8vo. pp. 196. [Hartford: Published by the Society. 1903.

Transactions of the American Otological Society. Thirty-Sixth Annual Meeting, Washington, D. C., May 12 and 13, 1903. Vol. VIII. Part 2 8vo. pp. 173-341. [New Bedford, Mass.: Printed by the Society. 1903.

A Manual of Bacteriology. By Herbert N. Williams, M.D. Third Edition. Revised and Enlarged. 12mo. pp. 351. With Ninety-nine Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.75 net.

QUIZ COMPEND. NO. 7.

Compend of Gynecology. By William H. Wells, M.D. Third Edition. Revised, Enlarged. 12mo. pp. 293. With 145 Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, 80 cents net.

A Treatise on Orthopedic Surgery. By Royal Whitman, M.D. Second Edition. Revised and Enlarged. 8vo. pp. 848. Illustrated with Five Hundred and Seven Engravings. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$5.50 net.

Practical Gynecology. A Comprehensive Text-Book for Students and Physicians. By E. E. Montgomery M.D., LL.D. Second Revised Edition. 8vo. pp. 900. With Five Hundred and Thirty-nine Illustrations, the greater number of which have been Drawn and Engraved specially for this Work, for the most part from Original Sources. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$5.00 net.

Text-Book of Diseases of the Eye. For Students and Practitioners of Medicine. By Howard F. Hansell, A.M., M.D., and William M. Sweet, M.D. With Chapters by Christian R. Holmes, M.D., Carey A. Wood, M.D., D.C.L., and Wendell Reber, M.D. With 256 Illustrations, including Colored Plates. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$4.00 net.

Mammalian Anatomy, with Special Reference to the Cat. By Alvin Davidson, Ph.D. 12mo. pp. 250. With over One Hundred Illustrations, made by W. H. Reese, A.M., from the Author's Directions. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, \$1.50 net.

The Practice of Obstetrics. Designed for the Use of Students and Practitioners of Medicine. By J. Clifton Edgar. Imperial 8vo. pp. 1111. With 1221 Illustrations, many of which are printed in Colors. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, cloth, \$6.00; sheep or half-morocco, \$7.00 net.

The Practice of Medicine. A Text-Book for Practitioners and Students with Special Reference to Diagnosis and Treatment. By James Tyson, M.D. Third Edition, thoroughly Revised and in Parts Rewritten. Royal 8vo. pp. 1239. With 134 Illustrations, including Color Plates. [Philadelphia: P. Blakiston's Son & Co. 1903. Price, cloth, \$5.50 net.

LEA'S SERIES OF MEDICAL EPITOMES.

Anatomy. A Manual for Students and Practitioners. By Henry E. Hale, A.M., M.D. Series edited by V. C. Pedersen, A.M., M.D. 12mo. pp. 389. Illustrated with Seventy-one Engravings. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$1.00.

THE MEDICAL EPITOME SERIES.

Normal Histology. A Manual for Students and Practitioners. By John R. Wather, A.B., M.D. Series edited by V. C. Pedersen, A.M., M.D. 12mo. pp. 229. Illustrated with One Hundred and Fourteen Engravings. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$1.00 net.

Maladies des Pays Chauds. Manuel de Pathologie Exotique. Par Patrick Manson. Traduit de l'Anglais par Maurice Guibaud et Jean Brengues, et augmenté de Notes et d'un Appendice par M. Guibaud. 8vo. 776 pages. Avec 114 Illustrations et 2 Planches en Couleurs. [Paris: C. Naud, 3 rue Racine. 1904. Prix, 12 francs.

Clinical Pathology of the Blood. A Treatise on the General Principles and Special Applications of Hematology. By James Ewing, A.M., M.D. Second Edition. Revised and Enlarged. 8vo. pp. 495. Illustrated with Forty-three Engravings and Eighteen Colored Plates Drawn by the Author. [Philadelphia and New York: Lea Brothers & Co. 1903. Price, \$3.50 net.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession throughout the World. Edited by A. D. J. Kelly, A.M., M.D., with the Collaboration of Wm. Osler, M.D., John H. Musser, M.D., Jas. Stewart, M.D., J. B. Murphy, M.D., A. McPherson, M.D., Thos. M. Rotch, M.D., John G. Clark, M.D., James J. Walsh, M.D., J. W. Ballantyne, M.D., John Harold, M.D., Edmund Landolt, M.D. and Richard Kretz, M.D. With Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Vol. III. Thirteenth Series. 1903. 8vo. pp. 305. Illustrated. [Philadelphia: J. B. Lippincott Co. 1903. Price, cloth, \$2.00; half-leather, \$2.50. Each series consists of four volumes.

Announcement. — Messrs. C. B. Treat & Co., 241-243 West 23d St., New York, announce the following books in press, to appear very shortly:

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DISEASES OF METABOLISM AND NUTRITION.—Part IV., Auto-intoxication. By Prof. Dr. Carl von Noorden, Physician-in-Chief to the City Hospital, Frankfort-on-Main, and Dr. Mohr. Authorized American Edition. Edited by Boardman Reed, M.D. Small 8vo. 80 pages. 50 cents.

The Medical News Visiting List for 1904 is an invaluable, pocket-sized, wallet-shaped book, containing memoranda and data important for every physician, and ruled blanks for recording every detail of practice. Being in its eighteenth year of issue, it embodies the results of long experience and study devoted to its development and perfection. It is issued in four styles, to meet the requirements of every practitioner. The Weekly, Monthly and 30-Patient Perpetual, contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil and rubber, and calendar for two years, \$1.25. Thumb-letter index, 25 cents extra. By mail, post-paid, to any address. The text portion of the Medical News Visiting List for 1904 has been thoroughly revised and brought up to date. It contains,

among other valuable things, a scheme of dentition; tables of weights and measures and comparative scales; instructions for examining the urine; table of eruptive fevers; incompatibles, poisons and antidotes; directions for effecting artificial respiration; extensive table of doses; an alphabetical table of diseases and their remedies; and directions for ligation of arteries. The record portion contains ruled blanks of various kinds, adapted for noting all details of practice and professional business. Printed on fine, tough paper, suitable for either pen or pencil, and bound with the utmost strength in handsome grained leather, the Medical News Visiting List is sold at the lowest price compatible with perfection in every detail. This List is published by Lea Brothers of Philadelphia and New York.

Vital Statistics.—At the recent meeting of the American Public Health Association held at Washington, the Committee on Vital Statistics reported that effective co-operation had been instituted between that association, the Conference of State Boards of Health, the American Medical Association, the United States Census Bureau, and the United States Public Health and Marine Hospital Service, for the improvement of the vital statistics of this country. Among the objects sought are the extension of adequate methods of registration, the use of uniform and comparable tables and rates in bulletins and reports, and the improvement of the international classification of causes of death. A pamphlet on "Statistical Treatment of Causes of Death" has been issued by the United States Census Bureau, requests for which should be addressed to Mr. W. A. King, Chief Statiscian for Vital Statistics, Census Bureau.

It has special reference to the difficulties encountered in compiling deaths returned from several causes, and asks for the co-operation of the profession in framing a thoroughly satisfactory method of procedure in such cases.

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Extract from a paper published in the National Medical Review, Washington, D. C., November 1899, by William Porter, M. D., St. Louis, Mo., Professor of Physical Diagnosis and Diseases of the Chest, at the Beaumont Medical College; ex-President of the Mississippi Valley Medical Association; formerly Assistant at the Golden Square (London) Throat and Chest Hospital; Assistant to the late Morell MacKenzie.

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